# **APPENDIX F**

Waterbody Data Sheets
Part 1 of 24

Waterbody Date	a Silect									
Description										
Project Name:						Date:			Waterbody \$	Survey ID:
Line 5 Relocation Pro	ject					2019-09-24			sase006p	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Ashland	I			Bay City Cre	ek			
Company:		Crew Mo	ember Init	tials:		Latitude:			Longitude:	
Enbridge		KDF/AR	RK			46.551127			-90.895194	
Survey Type: (check one)	☑ Centerle	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type:	☐ River		✓ Stream	า		Ditch	☐ Swale	☐ Canal		Other
Water Appearance:	☐ No Wa	ter	✓ Clear			Turbid	☐Sheen on Surface	n □Surfac	e Scum 🗆	Algal Mats □Other
Existing Condition <sup>a</sup> :	☑ Highly	Function	nal Stream		Moderately	y Functional S		☐ Functionally	Impaired Stre	eam
Feature Description:	✓ Natural		☐ Artificia	al, man-m	nade 🗆	Manipulated				
Flow Regime: (check one)	☐ Ephem	eral	☐ Interm	ittent	V	Perennial	☐ Connec	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	nt	✓ Meano	dering			Swale			
Description Notes: The perennial stream species are present a						_	oanks. Mosse	es are abundan	it along the ba	anks. Some invasive
Measurements										
Depth of Water: 1	ft.	N/A□	Unknov	wn 🗆   W	ater Edge	e to Water Ed	<b>ge:</b> <u>10</u> ft.	N/A□	OHWM Widt	: <b>h:</b> <u>12</u> ft.
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	□Shel	ving	□Wrested v	egetation	<b>☑</b> Scouring		□Water staining
(спеск ан тасарру)		ent, matte ing vege		□Wrac	ck line	<b>☑</b> Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□В€	edrock	□ Во	ulder	□ Cobb	le 🗆 C	Gravel	<b>☑</b> Sand	☐ Silt/ cla	y 🗆 Organic
Observations										
Riparian Zone Preser	nt: 🗆 Ye	es	<b>V</b> 1	No						
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	<b>v</b> :	Saplings/	Shrubs	☑ Herbs				
Dominant Bank Vege Rhamnus cathartica,	<b>etation</b> <i>(list</i> Fraxinus ni	gra, Ilex	verticillata	, Athyriur	n filix-femi	ina, Thalictrur	n thalictroide:	S.		
Aquatic Habitats (ex: Downed woody debris	submerged or s, overhanç	emerged ac	quatic vegetat	tion, overhar ts.	nging banks/ro	oots, leaf packs, la	irge submerged v	vood, riffles, deep po	pols, etc.):	
Aquatic Organisms ( Frogs, tadpoles, aqua	Observed ( tic inverted	(list): orates.								
<b>Disturbances</b> (ex: live None.	stock acces	s, manure	in waterboo	dy, waste d	discharge pi	ipes):				
Observation Notes: None.										



sase006p\_N (across)



sase006p\_SE (downstream)



sase006p\_SW (upstream)

Trate: Beay Bat	4 011000										
Description											
Project Name:						Date:				Waterbody S	urvey ID:
Line 5 Relocation Pro	ject					2019-09	9-24			sase007e	
State:		County/	Parish:			USGS V	Vate	body Name	):	l	
WI		Ashland	i			UNT to	Bay	City Creek			
Company:		Crew M	ember Ini	tials:		Latitude	9:			Longitude:	
Enbridge		ARK/KD	)F			46.5506	886			-90.894720	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access R	oad	□Facility	□Othe	r	
Waterbody Type: (check one)	☐ River		✓ Strean	n		Ditch		☐ Swale	☐ Cana	al 🗆 (	Other
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear			∃Turbid		☐Sheen or Surface	n □Surfa	ice Scum	lgal Mats □Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	nal Stream	n 🗆	Moderate	ely Function	nal S		Functionally	/ Impaired Strea	am
Feature Description: (check one)						∃ Manipula					
Flow Regime: (check one)	<b>☑</b> Ephem		☐ Interm			] Perennia	ıl	☐ Connection Connecti	eting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	it	✓ Mean	dering							
Measurements											
Depth of Water:	ft.	N/A 🗹	Unknov	wn□	Water Ed	ge to Wate	r Ed	<b>ge:</b> ft.	. N/A 🗹	OHWM Width	n:1ft.
OLDAVA In dia star		P			- I. da				15f(0		
OHWM Indicator: (check all that apply)	<b></b> ✓Be	ear line on the matter ing vege	ed, or		elving ack line	□Litter		egetation lebris	✓Scouring  □Abrupt pla	nt community	□Water staining □Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Cob	ble	□ G	ravel	☐ Sand	<b></b> Silt/ clay	□ Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	<b>V</b>	No							
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings	s/Shrubs	□Н	erbs				
Dominant Bank Vege Rhamnus cathartica.	etation (list	):									
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegeta	ition, overh	nanging banks	s/roots, leaf pa	icks, la	rge submerged v	wood, riffles, deep	pools, etc.):	
Aquatic Organisms ( None.	Observed (	(list):									
<b>Disturbances</b> (ex: live Highly eroded bed an					e discharge	pipes):					
Observation Notes: Connects to Bay City	Creek (sas	se006p) (	outside su	rvey cor	ridor.						



sase007e\_NE (downstream)



sase007e\_SE (upstream)



sase007e\_SW (across)

Trate. Sour Bat	4 011000													
Description														
Project Name:						Date					Waterbody	y Surv	/ey ID:	
Line 5 Relocation Pro	ject					2019	-09-25				sasa049i			
State:		County/	/Parish:			USG	S Wate	rbody Name	<b>9</b> :					
WI		Ashland	d			UNT	to Little	Beartrap Cr	reek					
Company:		Crew M	ember Init	tials:		Latitu	ıde:				Longitude	:		
Enbridge		NTT/DC	<b>GL</b>			46.53	32615				-90.894670	0		
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access	Road	□Facility		Other				
Waterbody Type:	□ River		✓ Stream	n		Ditch		☐ Swale		Canal		☐ Oth	er	
Water Appearance: (check one)	☐ No Wat	ter	☐ Clear			Turbid		☐Sheen or	n 🗓	<b>/</b> Surfac	e Scum [	□Alga	al Mats	□Other
Existing Condition <sup>a</sup> : (check one)	□ Highly	Function	nal Stream		Moderate	ely Fund	tional S	Surface Stream	Func	tionally	Impaired St	tream		
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-	made [	∃ Manip	ulated							
Flow Regime: (check one)	☐ Ephem	eral	✓ Interm	ittent		Peren	nial	☐ Connection Connection	cting					
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Meano	dering										
Measurements						( \		5 6		N/A 🗔	OUNNA ME	Jak	0 4	
Depth of Water: 1	ft.	N/A□	Unknov	wn□	Water Ed	ge to W	ater Ed	<b>ge</b> : <u>5</u> ft	<u>.</u>	N/A□	OHWM Wi	dth:	<u>6</u> ft.	
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	<b>⊠</b> She	elving	□Wr	ested v	egetation	□Sco	uring		ľ	☑Water st	taining
, , , , , , , , , , , , , , , , , , , ,		nt, matte		□Wra	ack line	<b>⊈</b> Litt	er and	debris	<b>☑</b> Abru chang		t communit		∃Soil chai hange	racteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Cok	oble		Gravel	□ Sar	nd	<b>I</b> Silt/ cl	lay	□ 0	)rganic
Observations														
Riparian Zone Preser (check one)	nt: 🗹 Ye	es	□ I	No										
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings	s/Shrubs	V	Herbs							
Dominant Bank Vege Rhamnus cathartica,	<b>etation</b> <i>(list</i> Fraxinus ni	): gra, Pha	alaris arunc	dinacea	, Calamag	rostis c	anaden	sis, Rubus id	daeus.					
Aquatic Habitats (ex: Overhanging vegetati	submerged or On.	emerged a	quatic vegetat	tion, overh	nanging bank	s/roots, lea	f packs, la	arge submerged	wood, riffle	s, deep po	ools, etc.):			
Aquatic Organisms ( None.	Observed (	(list):												
<b>Disturbances</b> (ex: live None.	stock access	s, manure	in waterboo	dy, waste	e discharge	pipes):								
Observation Notes: Feature ends when it	reaches th	e powerl	line corrido	or.										



sasa049i\_N (across)



sasa049i\_NW (downstream)



sasa049i\_SE (upstream)

Trate: Beay Batt	2 011000										
Description											
Project Name:						Date:			Waterbody St	ırvey ID:	
Line 5 Relocation Proj	ect					2019-09-25			sasa048e		
State:		County/F	Parish:			USGS Wate	rbody Nam	e:			
WI		Ashland				UNT to Little	Beartrap C	reek			
Company:		Crew Me	mber Init	ials:		Latitude:			Longitude:		
Enbridge		NTT/DG	L			46.530824			-90.894966		
Survey Type: (check one)	☑ Center	ine	☐ Re-Rou	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	□ River		□ Stream	1	V	Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	✓ No Wa	ter	☐ Clear		□⊺	Turbid	☐Sheen o	on □Surfac	e Scum	gal Mats 🗆	Other
Existing Condition <sup>a</sup> :	☐ Highly	Function	al Stream	□ N	/loderately	/ Functional S		<b>■</b> Functionally	Impaired Strea	m	
Feature Description: (check one)	☐ Natura		✓ Artificia	al, man-m	ade 🗆 l	Manipulated					
Flow Regime: (check one)	<b>E</b> Ephem	eral	☐ Intermi	ittent		Perennial	☐ Conne Swale	cting			
Sinuosity within Survey Corridor: (check one)	<b>☑</b> Straigh	it	□ Meand	lering							
Roadside ditch.											
Measurements											
Depth of Water:	ft.	N/A 🗹	Unknov	vn 🗆 🛚 W	ater Edge	to Water Ed	<b>ge:</b> f	t. N/A🗹	OHWM Width	: <u>2</u> ft.	
OHWM Indicator: (check all that apply)	□С	ear line o	n bank	□Shelv	/ing	□Wrested v	egetation	□Scouring		□Water stai	ning
(oncort all that apply)	<b>⊠</b> Be miss	ent, matted ing vegeta	d, or ation	□Wrac	k line	□Litter and	debris	□Abrupt plan change	t community	□Soil charac	cteristic
Dominant Substrate: (check all that apply)		edrock	□ Воι	ulder	□ Cobb	le 🗆 C	Gravel	□ Sand	<b></b> Silt/ clay	□ Org	anic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	<b>I</b>	No							
Vegetation Layers: (check all that apply)	□ Tr	ees	<b>Ø</b> 9	Saplings/S	Shrubs	✓ Herbs					
Dominant Bank Vege Calamagrostis canade	ensis, Sym	phyotrich		-		·	•				
Aquatic Habitats (ex: None.	submerged or	emerged aq	uatic vegetat	ion, overhan	iging banks/ro	oots, leaf packs, la	arge submerged	wood, riffles, deep po	ools, etc.):		
Aquatic Organisms O None.	)bserved	(list):									
<b>Disturbances</b> (ex: live Receives runoff from a			in waterboo	dy, waste d	ischarge pi	pes):					
Observation Notes: Ditch flows through we	etland was	a111e.									_



sasa048e\_E (downstream)



sasa048e\_S (across)



sasa048e\_W (upstream)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	/ Survey ID:	
Line 5 Relocation Proj	ect					2019-09-25			sasa047i		
State:		County/l	Parish:			USGS Wate	rbody Name	: :			
WI		Ashland				Little Beartra	ap Creek				
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude:	<u> </u>	
Enbridge		NTT/DG	L			46.528086			-90.895009	9	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Rou	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	□ River		✓ Stream	)		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	□ No Wa	ter	✓ Clear		_1	Γurbid	☐Sheen or Surface	ı □Surfac	e Scum 🛚	□Algal Mats	□Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	al Stream		Moderately	y Functional S		Functionally	Impaired St	ream	
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-m	nade 🗆	Manipulated					
Flow Regime: (check one)	☐ Ephem	eral	✓ Intermi	ttent		Perennial	☐ Connec Swale	ting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	nt	<b>☑</b> Meand	ering							
Description Notes: The waterbody is an in logs are washed up al				lers throu	ugh a dens	sely wooded f	orest. Area h	as been disturb	ed due to c	attle grazing.	Debris and
Measurements											
Depth of Water: 0.5	ft.	N/A□	Unknov	vn□   <b>W</b>	ater Edge	to Water Ed	<b>ge:</b> 3 ft.	N/A□	OHWM Wie	<b>dth:</b> <u>4</u> f	t.
OHWM Indicator:	□ CI	ear line o	on bank	□Shel	ving	□Wrested v	egetation	□Scouring		□Water	staining
(check all that apply)		ent, matte ing veget		□Wrac	ck line	<b>☑</b> Litter and	debris	✓Abrupt plan change	t community	y □Soil cha change	aracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Воι	ulder	<b>☑</b> Cobb	le 🗆 C	Gravel	□ Sand	☐ Silt/ cl	ay 🗹	Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es		No							
Vegetation Layers:	<b>☑</b> Tr	ees	<b>v</b> 9	Saplings/	Shrubs	☑ Herbs					
Dominant Bank Vege Fraxinus nigra, Rham	tation (list	tica, Care	ex intumes	cens.							
Aquatic Habitats (ex. Pools of standing water	submerged or er.	emerged ac	quatic vegetat	ion, overhar	nging banks/re	oots, leaf packs, la	arge submerged v	wood, riffles, deep po	pols, etc.):		
Aquatic Organisms C None.	Observed (	(list):									
<b>Disturbances</b> (ex: live Cattle grazing.	stock acces	s, manure	in waterboo	ly, waste o	discharge pi	ipes):					
Observation Notes: Currently, no water is	flowing, bu	ut some s	tanding wa	ater is po	ooled.						



sasa047i\_E (downstream)



sasa047i\_S (across)



sasa047i\_W (upstream)

Trato. Souy Batt	4 011000										
Description											
Project Name:						Date:			Waterbody S	ırvey ID:	
Line 5 Relocation Pro	ect					2019-09-2	5		sasa046e		
State:		County/	Parish:			USGS Wat	erbody Nam	e:	1		
WI		Ashland	t			UNT to Litt	le Beartrap C	reek			
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:		
Enbridge		NTT/DC	<b>GL</b>			46.527438			-90.895119		
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	I □Facility	□Other			
Waterbody Type:	□ River		✓ Stream	า		Ditch	☐ Swale	☐ Cana	I 🗆 C	Other	
Water Appearance:	☐ No Wat	ter	☑ Clear			Turbid	□ Sheen o	n □Surfa	ce Scum	gal Mats □O	ther
(check one)  Existing Condition <sup>a</sup> : (check one)	□ Highly	Function	nal Stream		Moderate	ly Functional	Surface Stream	Functionally	Impaired Strea	m	
Feature Description: (check one)	☐ Natural		☐ Artificia	al, man-	made 🗹	Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Conne Swale	cting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Meano	dering							
The waterbody is an ebuckthorn throughout.	•	stream t	hat meand	ers thro	ough a woo	oded area. Th	e area is hea	vily disturbed a	nd impacted by	grazing. Dense	
Measurements								N/A			
Depth of Water: 0.5	ft.	N/A□	Unknov	wn□ \	Water Edg	je to Water E	<b>dge:</b> <u>3</u> f	t. N/A□	OHWM Width	: <u>4</u> ft.	
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	□She	elving	<b>☑</b> Wrested	vegetation	<b>☑</b> Scouring		□Water stainin	g
(		nt, matte		□Wra	ack line	<b>☑</b> Litter and	l debris	<b>☑</b> Abrupt plar change	nt community	✓ Soil character change	ristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Cob	ble 🗆	Gravel	□ Sand	□ Silt/ clay	<b></b> Organi	ic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	<b>V</b> 1	No							
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings	s/Shrubs	☐ Herb	S				
<b>Dominant Bank Vege</b> Rhamnus cathartica, l	<b>tation</b> <i>(list</i> raxinus ni	) <del>:</del> gra, Ace	r rubrum.								
Aquatic Habitats (ex: Standing water.	submerged or	emerged a	quatic vegeta	tion, overh	anging banks	/roots, leaf packs	large submerged	wood, riffles, deep p	ools, etc.):		
Aquatic Organisms ( None.	Observed (	(list):									
<b>Disturbances</b> (ex: live Debris and logs wash	stock accessed up throu	s, manure ighout s	in waterboot tream. Use	dy, waste ed by ca	discharge   attle at one	pipes): point. Graze	d trails throug	hout the area.			
Observation Notes: None.											



sasa046e\_E (downstream)



sasa046e\_N (across)



sasa046e\_W (upstream)

**Open Waterbody Data Sheet** 

Open waterboo	y Data	Sneet							
Description									
Project Name:					Date:			Waterbody Su	urvey ID:
Line 5 Relocation Proje	ect				2019-09-24			oasa002	
State:		County/	Parish:		USGS Water	body Name			
WI		Ashland			None				
Company:		Crew Mo	ember Initials:		Latitude:			Longitude:	
Enbridge		NTT/DO	<b>3</b> L		46.525975			-90.894770	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Route		Access Road	□Facility	□Other		
Waterbody Type: (check one)	☐ Stock F	ond	☐ Natural Pond		Fishing Pond	☐ Lake	☑ Other		
	□ No Wa	ter	✓ Clear	□Т	urbid	☐Sheen on Surface	□Surfac	e Scum □Al	gal Mats □Other
Feature Quality: (check one)	□ High		☐ Moderate	<b>V</b> 1	Low				
Feature Description: (check one)	□ Natural		Artificial, man-r	made 🗆 l	Manipulated				
Small excavated pond	located ne	ear a resi	dence.						
Measurements									
Depth of Water: 3	_ ft.	N/A□	Unknown□						
OHWM Indicator: (check all that apply)	□ Cl	ear line o	on bank □She	elving	□Wrested ve	egetation	□Scouring		□Water staining
		nt, matte		ack line	□Litter and o	lebris	☑Abrupt plan change	t community	✓ Soil characteristic change
Dominant Substrate: (check all that apply)	□В€	edrock	☐ Boulder	<b>☑</b> Cobbl	le □ G	iravel	□ Sand	□ Silt/ clay	□ Organic
Observations									
Riparian Zone Present (check one)	t: □ Ye	es	<b>☑</b> No						
Vegetation Layers: (check all that apply)	□ Tr	ees	☐ Saplings	/Shrubs	✓ Herbs				
Dominant Bank Veget Mowed lawn surrounding	t <b>ation</b> (listing pond d	): ominated	d by Poa pratensis	).					
Aquatic Habitats (ex: s Open water.	ubmerged or	emerged ac	μαtic vegetation, overha	anging banks/ro	oots, leaf packs, la	rge submerged v	rood, riffles, deep po	ools, etc.):	
Aquatic Organisms O None.	bserved (	(list):							
<b>Disturbances</b> (ex: lives Located within manicur	tock acces ed lawn n	s, manure ear a ho	in waterbody, waste use.	discharge pi	pes):				
Observation Notes: Large boulders surrour	ad the pon	d.							



oasa002\_E



oasa002\_N



oasa002\_NE

Trater Body Batt	2 011000									
Description										
Project Name:					Date:			Waterbody St	ırvey ID:	
Line 5 Relocation Proj	ect				2019-09-10	)		sasb008e		
State:		County/Pa	arish:		USGS Wat	erbody Nam	e:	I		
WI		Ashland			UNT to Bea	artrap Creek				
Company:		Crew Mem	nber Initial	ls:	Latitude:			Longitude:		
Enbridge		MAL/SAM			46.518205			-90.895947		
Survey Type: (check one)	☑ Center	ine 🗆	Re-Route	)	☐Access Road	□Facility	□Other			
Waterbody Type: (check one)	□ River	V	Stream		□ Ditch	☐ Swale	☐ Canal	I 🗆 C	Other	
Water Appearance: (check one)	✓ No Wa	ter 🗆	Clear		□Turbid	□Sheen o	on □Surfac	e Scum	gal Mats	□Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Functional	Stream	☐ Moderat	tely Functional		Functionally	Impaired Strea	m	
Feature Description: (check one)					□ Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem	eral $\square$	Intermitte	ent [	☐ Perennial	☐ Conne Swale	ecting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t <b>v</b>	Meander	ing						
Measurements										
Depth of Water:	ft.	N/A <b>⊻</b>	Unknown	□ Water Ed	lge to Water E	dge: f	ft. N/A🗹	OHWM Width	: <u>1</u> ft.	
OHWM Indicator: (check all that apply)	□С	ear line on	bank [	□Shelving	□Wrested	vegetation	□Scouring	I	□Water sta	aining
(orlook all that apply)		nt, matted, ng vegetat		□Wrack line	□Litter and	debris	□Abrupt plan change	t community	□Soil char	acteristic
Dominant Substrate: (check all that apply)		edrock	□ Bould	ler 🗆 Col	bble 🗆	Gravel	□ Sand	<b>I</b> Silt/ clay	□ Oı	rganic
Observations										
Riparian Zone Preser	nt: 🗆 Ye	es	<b>☑</b> No							
Vegetation Layers: (check all that apply)	□ Tr	ees	<b>☑</b> Sa <sub>l</sub>	plings/Shrubs	<b>☑</b> Herb	S				
Dominant Bank Vege Crataegus sp., Pteridi	um aquilin	um, Rhamr				ŭ		·	l.	
Aquatic Habitats (ex: None.	submerged or	emerged aqua	atic vegetation	, overhanging bank	ks/roots, leaf packs,	large submerged	I wood, riffles, deep po	ools, etc.):		
Aquatic Organisms O None.	)bserved	(list):								
<b>Disturbances</b> (ex: live Invasive species.	stock acces	s, manure in	waterbody,	waste discharge	e pipes):					
Observation Notes: No standing or flowing	y water at t	ime of surv	vey.							



sasb008e\_E (downstream)



sasb008e\_N (across)



sasb008e\_W (upstream)

Trace. Sea y Back	4 011000									
Description										
Project Name:						Date:			Waterbody St	urvey ID:
Line 5 Relocation Proj	ect					2019-09-10			sasb007i	
State:		County	/Parish:			USGS Wate	rbody Name	:		
WI		Ashland	b			Beartrap Cr	eek			
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		MAL/SA	AM			46.517822			-90.895906	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute	$\Box$ $\digamma$	Access Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		<b>☑</b> Strean	n		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	☐ No Wa	ter	☐ Clear		<b>☑</b> T	Γurbid	☐Sheen on Surface	ı □Surfac	e Scum □Al	lgal Mats □Other
Existing Condition <sup>a</sup> :	☐ Highly	Function	nal Stream		Moderately	y Functional S		Functionally	Impaired Strea	m
Feature Description: (check one)	✓ Natural		☐ Artificia			Manipulated				
Flow Regime: (check one)	☐ Ephem		✓ Interm			Perennial	☐ Connec Swale	ting		
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Mean	dering						
Measurements										
Depth of Water: 0.25	<u>5</u> ft.	N/A□	Unknov	wn□ <b>V</b>	Vater Edge	to Water Ed	<b>ge:</b> <u>5</u> ft.	N/A□	OHWM Width	: <u>6</u> ft.
OHWM Indicator:	□ C	ear line	on bank	□She	lving	<b>☑</b> Wrested v	egetation	Scouring		□Water staining
(check all that apply)		nt, matte ing vege		□Wra	ck line	<b>☑</b> Litter and	debris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☐ Cobb	le 🗹 (	Gravel	<b>☑</b> Sand	<b>坚</b> Silt/ clay	□ Organic
Observations										
Riparian Zone Preser	nt: 🗆 Ye	es	<b>V</b>	No						
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings	/Shrubs	✓ Herbs				
Dominant Bank Vege Bank vegetation domi	<b>tation</b> (list	): hamnus	cathartica	ı, Cratae	gus sp., an	nd Alnus incar	ıa.			
Aquatic Habitats (ex: Pools of water.	submerged or	emerged a	quatic vegeta	tion, overha	anging banks/re	oots, leaf packs, la	arge submerged w	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms O Water striders, frogs.	Observed (	(list):								
<b>Disturbances</b> (ex: live Erosion, invasive spec		s, manure	in waterbo	dy, waste	discharge pi	ipes):				
Observation Notes: None.										



sasb007i\_NW (downstream)



sasb007i\_SW (upstream)



sasb007i\_W (across)

Waterbody Date	JIICEL									
Description										
Project Name:						Date:			Waterbody	Survey ID:
Line 5 Relocation Proj	ect					2019-10-07			sasc035e	
State:		County/	Parish:			USGS Wate	rbody Name	<u> </u>		
WI		Ashland				UNT to Bear	trap Creek			
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		AGG/JS	W			46.516165			-90.909001	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	☐ River		☑ Stream	n		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	☐ No Wa	ter	☐ Clear		Ø	Γurbid	□Sheen on Surface	Surfac	e Scum 🛚	Algal Mats □Other
Existing Condition <sup>a</sup> :	□ Highly	Function	al Stream		Moderately	y Functional S		Functionally	Impaired Stre	eam
Feature Description: (check one)	☐ Natural		☐ Artificia	al, man-m	nade 🗹	Manipulated				
Flow Regime: (check one)	<b>E</b> phem	eral	☐ Interm	ittent		Perennial	☐ Connect	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	nt	✓ Meano	dering			Oward			
Measurements										
Depth of Water: 0.5	_ ft.	N/A□	Unknov	wn□ W	ater Edge	to Water Ed	<b>ge:</b> 3 ft.	N/A□	OHWM Wid	<b>th:</b> <u>3</u> ft.
OHWM Indicator:	<b>☑</b> CI	ear line o	on bank	□Shelv	ving	□Wrested v	egetation	□Scouring		□Water staining
(check all that apply)		ent, matte ing veget		□Wrac	ck line	□Litter and o	debris	□Abrupt plan change	t community	□Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Cobb	le 🗆 G	Gravel	□ Sand	<b>I</b> Silt/ cla	y 🗆 Organic
Observations										
Riparian Zone Presen (check one)	it: 🗆 Ye	es	<b>V</b> 1	No						
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	<b>Ø</b> :	Saplings/	Shrubs	☑ Herbs				
<b>Dominant Bank Vege</b> Scirpus cyperinus, Jur	tation (list	'): yi, Popul	us tremulo	oides.						
<b>Aquatic Habitats</b> (ex. s Pools, litter and debris	submerged or	emerged ac	quatic vegeta	tion, overhar	nging banks/ro	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms C None.	bserved (	(list):								
Disturbances (ex: lives Livestock access, culv		s, manure	in waterboo	dy, waste d	discharge pi	ipes):				
Observation Notes: The feature has heavy	cattle trar	mpling th	at affects	flow and I	bank stabi	ility.				



sasc035e\_NW (across)



sasc035e\_NW (upstream)



sasc035e\_SE (downstream)

Waterbody Date	Jileet										
Description											
Project Name:						Date:			Waterbody	y Survey ID:	
Line 5 Relocation Proj	ect					2019-09-04			sasa003i		
State:		County/	Parish:			USGS Wate	rbody Name	<u> </u>			
WI		Ashland				Beartrap Cre	eek				
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:	:	
Enbridge		NTT/DG	iL			46.513222			-90.911843	3	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type:	□ River		✓ Stream	ı		Ditch	☐ Swale	☐ Canal		☐ Other	
Water Appearance:	☐ No Wa	ter	☐ Clear		□Т	urbid	□Sheen on Surface	<b>☑</b> Surfac	e Scum 🗆	□Algal Mats	□Other
Existing Condition <sup>a</sup> :	☐ Highly	Function	al Stream	□ M	/loderately	/ Functional S		Functionally	Impaired St	ream	
Feature Description:	☐ Natural		☐ Artificia	al, man-m	ade 🗹 l	Manipulated					
Flow Regime:	☐ Ephem	eral	✓ Interm	ittent		Perennial	☐ Connec	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Meand	dering			Owalc				
Measurements Depth of Water: 0.5	ft.	N/A□	Unknov	vn□ <b>W</b> :	ater Edge	e to Water Ed	<b>ge:</b> <u>10</u> ft.	N/A□	OHWM Wid	<b>dth</b> : <u>10</u> ft	
OHWM Indicator:	□ CI	ear line o	on hank	□Shelv	vina	□Wrested ve	egetation	Scouring		□Waters	taining
(check all that apply)	<b>⊠</b> Be	nt, matte	ed, or	□Wrac	· ·	□Litter and	·	☑Abrupt plan change	t community		aracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	<b>☑</b> Cobb	le 🗹 🤆	Gravel	□ Sand	<b>I</b> Silt/ cl	lay 🗆 (	Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	<b>I</b>	No							
Vegetation Layers:	□ Tr	ees		Saplings/S	Shrubs	<b>☑</b> Herbs					
Dominant Bank Vege Cicuta maculata, Iris v	etation (list versicolor, i	): Aralia nu	dacalis, E	chinochlo	a crus-gal	i, Persicaria h	ydropiper, R	umex crispus.			
Aquatic Habitats (ex: Areas of ponded wate	submerged or r througho	emerged ac ut.	quatic vegetat	tion, overhan	ging banks/ro	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms C Frogs and aquatic inve	<b>Observed</b> ( ertebrates	(list): observed	d.								
<b>Disturbances</b> (ex: live Heavily disturbed by c	stock access attle.	s, manure	in waterboo	dy, waste d	ischarge pi	pes):					
Observation Notes: None.											



sasa003i\_E (downstream)



sasa003i\_S (across)



sasa003i\_W (upstream)

### **Linear Waterbody Data Sheet**

Project Name:   Waterbody Name:   waterbody Name:   Sate:	Survey Description						
State:   County:   Company:   Crew Member Initials:   Photos:   Shahand   West   Shahand   Shahand   West   Shahand   Shahandda   Shahandda	Project Name:	Wate	erbody Name:		Waterbody ID:		
Material	Line 5 Relocation Project	Unna	med swale/erosional f	feature	sasw021		10/14/2019
Tract Number(s): Wh.AS-045.008, Wh.AS-045.010, Wh.AS-042.004 Wh.AS-045.008, Wh.AS-045.008, Wh.AS-045.008 Whaterbody Type:	State:	County:	Company:		Crew Member Initials	: Photos:	
Survey Type:   Genterline   Re-Route   Access Road   Other: Alternative	WI	Ashland	West		ES, AS	8161,81	62, 8164
Survey Type:	Tract Number(s):		Nearest Mile	epost	Associated V	/etland ID(s):	
Centerline   Re-Route   Recess Road   Other: Alternative	WI-AS-045.009, WI-AS-0	045.010, WI-AS-042.004	1 N/A		none		
Stream Classification:    Concess one)		☐ Centerline	□Re-Route	□Access Road	□Other: Alte	rnative	
Stream Classification:    Concess one)	Physical Attributes						
Waterbody Type:   Stream   Ditch   Canal   Stream   Other: topo defined swale    OHWM   Indicator:   Other   O	Stream Classification:						
Check cond	(crieck one)	⊠ Ephemeral	□Intermittent	⊔Perennial			
Width:ft.   Check all that sapply   Clear line   Clear   Clear   Combot   Clear line   Clear		River   Stream	□ Ditch □ (	Canal ⊠ Oth	er: topo defined swale		
Title   Section   Staining   Water   Section   Section   Staining   Section	ОНШМ						
Vegetation   Veg		(check all that apply)		ne ⊠Shelvin		⊠Scourin	
Width of Waterbody - Top of Bank to Top of Bank to Top of Bank to Top of Bank to Top of Bank:	<u>1ft</u> .		ed, or missing □Wra				aracteristic change
Sinuosity:   Water velocity:   Water velocity:   Bank height   Right:   Left:   10	Width of Waterbody - To				ody - Water Edge to		r:
Straight   Water velocity:   Bank height   Bank slope   Right:   Right:   Right:   Bank slope   Right:   Bank slope   Right:   Bank slope   Right:			•		Oir ft		1in
Straight	1I.		<u>3</u> π.	N/A□	<u>8in</u> π.	N/A□	
Straight			ty:	Bank height		Bank slope	
Left:		(Approx.)		Right:		Right	
Water Appearance:   Check one	-		<u> </u>	Left:	<u>10         </u> tt.	Lef	
Water Appearance:	⊠Meanderin	9 N/A⊠			<u>15</u> ft.		90 degrees
Check one   No water   Clear   Turbid   Sheen   Surface   Algal   Other: some puddles present   Substrate:   Bedrock   Boulder   Cobble   Gravel   Sand   Silt/ clay   Organic   Other:   Cobble   Gravel	Qualitative Attribut	tes					
Substrate:							
Coheck all that apply/x   % of Substrate:	(check one)	No water □Clear			•	☐Other: some	puddles present
% of Substrate: % % % % 10 % % 30 % 60 % %  Width of Riparian Zone:   Vegetative Layers:   Check all that apply)   Trees:   Saplings/Shrubs:   Herbs   Avg. DBH of Dominants:   10 in.   2 in.   in.   in.		Bedrock   Boulder	☐ Cobble ☐ Grav	vel □ Sand □	⊠ Silt/ clay ⊠ Organ	ic   Other:	
Check all that apply)		%%	%10	%%	<u>30</u> % <u>60</u>	%%	
Check all that apply)	Width of Pinarian Zone	Vogetative Lave	are:				
Avg. DBH of Dominants: 10 in. 2 inin.	•			s: □ Sap	lings/Shrubs:	☐ Herbs	
Dominant Bank Vegetation (list):  Equisteum pratense, Cornus canadensis, sphagum moss, Ostrya virginiana, Abies balsamea, Pinus strobus  Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools):  Woody debris, leaf litter  Aquatic Organisms Observed (list): none  T&E Species Observed (list): none  Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):  Erosion, steep topography and slopes. Swale is located in ravine  Waterbody is: (check one)		•	minanta.			in.	
Woody debris, leaf litter  Aquatic Organisms Observed (list): none  T&E Species Observed (list): none  Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):  Erosion, steep topography and slopes. Swale is located in ravine  Waterbody is: (check one)	Dominant Bank Vegetat	tion (list):	um moss, Ostrya virgini	iana, Abies balsam	ea, Pinus strobus		
Woody debris, leaf litter  Aquatic Organisms Observed (list): none  T&E Species Observed (list): none  Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):  Erosion, steep topography and slopes. Swale is located in ravine  Waterbody is: (check one)	America Habitata (						
Aquatic Organisms Observed (list):  none  T&E Species Observed (list):  none  Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):  Erosion, steep topography and slopes. Swale is located in ravine  Waterbody is:  (check one)	,	bmerged or emerged aqua	tic vegetation, overhanging	banks/roots, leaf pac	ks, large submerged wood	d, riffles, deep poo	is):
T&E Species Observed (list):  none  Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):  Erosion, steep topography and slopes. Swale is located in ravine  Waterbody is: (check one)	Woody debris, leaf litter						
T&E Species Observed (list): none  Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):  Erosion, steep topography and slopes. Swale is located in ravine  Waterbody is: (check one)	Aquatic Organisms Obs	served (list):					
none  Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):  Erosion, steep topography and slopes. Swale is located in ravine  Waterbody is: (check one)	none						
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):  Erosion, steep topography and slopes. Swale is located in ravine  Waterbody is:  (check one)	T&E Species Observed	(list):					
Erosion, steep topography and slopes. Swale is located in ravine  Waterbody is:  (check one)	none						
Waterbody is: (check one)	Disturbances (ex: livesto	ck access, manure in wate	rbody, waste discharge pip	es):			
(check one) ⊠ Natural □ Artificial, man-made □ Manipulated  Stream Quality <sup>a</sup> :	Erosion, steep topography	and slopes. Swale is lo	cated in ravine				
Stream Quality <sup>a</sup> :		⊠ Natural	☐ Artificial man-m	nade	ulated		
	Stream Quality <sup>a</sup> :			·			

	roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	<b>Moderate Quality:</b> Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
	idence of swift flow, scour, although minimal water present. Significant erosion, deep linear channels with water cloudy puddles. Silt and sediment present. Tire present in channel. Sasw021 flows to sasw022
,	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

Waterbody ID: sasw021









# **APPENDIX F**

Waterbody Data Sheets
Part 2 of 24

## **Linear Waterbody Data Sheet**

<b>Survey Description</b>						
Project Name:	Waterb	ody Name:		Waterbody ID:		Date:
Line 5 Relocation Project	Unnam	ed tributary to White	River	sasw022		10/14/2019
State:	County:	Company:		Crew Member Initia	ls: Photos:	<u> </u> 
WI	Ashland	West		ES, AS	8165, 8 <sup>-</sup>	167, 70,74, 78
Tract Number(s):		Nearest Mile	post	Associated	Wetland ID(s):	
WI-AS-045.009, WI-AS-04	45.010, WI-AS-045.011	N/A		none		
Survey Type: (check one)	☐ Centerline	⊠Re-Route	□Access Road	□Other:		
Physical Attributes						
Stream Classification: (check one)	☐ Ephemeral	⊠Intermittent	□Perennial			
Waterbody Type: (check one)	River ⊠ Stream	☐ Ditch ☐ C	Canal □ Othe	er:		
OHWM	OHWM Indicator:					
<b>Width:</b> 4ft.	(check all that apply)	☐ Clear lin on bank	e ⊠Shelvin	g ⊠Wrested vegetation	□Scourir	ng □Water staining
Height: 16in N/A□	⊠Bent, matted, vegetation	or missing □Wrad	ck line ⊠Litter ar debris	nd   Abrupt pla community c		aracteristic change
Width of Waterbody - To Bank to Top of Bank:	p of Width of Water to Toe of Slope	body - Toe of Slope	Width of Waterbo Water Edge:	ody - Water Edge to	Depth of Wate (Approx.)	er:
ft.		<u>40</u> ft.		<u>4</u> ft.	N/A□	6in
Sinuosity:	Water velocity:		Bank height		Bank slope	
(check one) ☐ Straight	(Approx.)	0.10 fps	Right:	12 ft.	Righ	t: 90 degrees
⊠Meandering	·	.po	Left:	<u>8</u> ft.	Let	ft: 90 degrees
Qualitative Attribute	PS					
Water Appearance:						
(check one)	No water □Clear	⊠Turbid □Sh on su		rface □Algal cum mats	⊠Other red cla	y substrate
	Bedrock ☐ Boulder	⊠ Cobble ⊠ Grave	el 🗆 Sand 🛭	⊠ Silt/ clay ⊠ Orga	nic 🗆 Other:	
(check all that apply)x % of Substrate:	%	10%60	_%%	<u>30</u> % <u>60</u>	%%	
Width of Riparian Zone:	Vegetative Layers					
ft.	(check all that apply)  Avg. DBH of Domi	□ Trees nants: 10 i		lings/Shrubs: 2in.	☐ Herbs in.	
N/A⊠  Dominant Bank Vegetati  Equisteum pratense, Corr		n moss, Ostrya virginia	ana, Abies balsam	ea, Pinus strobus, Ca	arex pedunculata,	Betula papyrifera, Alnu
incana						
Aquatic Habitats (ex: sub	merged or emerged aquatic	vegetation, overhanging	banks/roots, leaf pac	ks, large submerged wo	od, riffles, deep poo	ols):
Woody debris, leaf litter, le	eaf packs and log jams, c	obble, felled trees				
Aquatic Organisms Obs	erved (list):					
none						
T&E Species Observed (	(list):					
Disturbances (ex: livestoo	k access, manure in waterbo	dy, waste discharge pipe	es):			
Erosion, steep ravine bank	s, felled trees from steep I	oanks in ravine channe	el			
Waterbody is: (check one)	Natural	☐ Artificial, man-m	ade 🗆 Manip	ulated		
Stream Quality <sup>a</sup> : (check one)	☐ High		□ Low			

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	<b>Moderate Quality:</b> Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	<b>Low Quality:</b> Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
	onifers dominate tree stratum, leaf litter and debris present, water cloudy and reddish, steep banks ravine, erosion on nks observed
١	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

Waterbody ID: sasw022









## **Waterbody Data Sheet**

Waterbody Data	Silect									
Description										
Project Name:						Date:			Waterbody S	urvey ID:
Line 5 Wisconsin Segme	ent Repla	acement F	<sup>o</sup> roject (E	inbridge)		10/12/2019			sasm001e	
State:		County/P	'arish:			USGS Wate	rbody Name:		8	
Wisconsin		Ashland				Unknown				
Company:		Crew Me	mber Init	tials:		Latitude:			Longitude:	
ERM		KTC, SE	G						0.000	
	Centerl	ine [	□ Re-Ro	ute		Access Road	□Facility	☑Other		
(check one)  Waterbody Type: (check one)	River	) [	<b>√</b> Stream	n		Ditch	☐ Swale	☐ Cana		Other
2	No Wat	er [	□ Clear		_1	Turbid	☐ Sheen on Surface	□Surfac	e Scum □A	lgal Mats □ Other
Feature Quality <sup>a</sup> : (check one)	High	E	√ Modera	ate		Low				
Feature Description: (check one)	Natural		☐ Artificia	al, man-mad	e □	Manipulated				
Flow Regime: (check one)	Ephem	eral [	□ Interm	ittent		Perennial	☐ Connecti Swale	ng		
Sinuosity within Survey Corridor: (check one)	Straigh	t [	□ Meano	dering						
Description Notes:										
Measurements										
Depth of Water:	ft.	N/A <b>⊠</b>	Unknov	wn□ Wate	r Edge	to Water Ed	ge: ft.	N/A <b>⊠</b>	OHWM Width	:1ft.
OHWM Indicator: (check all that apply)	☑ CI	ear line o	n bank	□Shelving	9	□Wrested ∨	egetation	☑ Scouring		□Water staining
7,		nt, mattec		□Wrack li	ne	☐ Litter and		□Abrupt plar change	t community	☑Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	drock	□ Во	ulder <b>⊻</b>	Cobb	le □ C	iravel	☐ Sand	Silt/ clay	☐ Organic
Observations										
Riparian Zone Present:	□ Ye	:s	▼ 1	No						
Vegetation Layers: (check all that apply)	<b>⊻</b> Tr	ees	₹ :	Saplings/Shr	ubs	☑ Herbs				
Dominant Bank Vegeta			for #5	201 50	30	som vita	0			
Grasses, forbs, sedges,		- 5)	270	- 10						
Aquatic Habitats (exc sub Potential for cascading)		emerged aqı	uati c vegetat	tion, overhanging	g banks/r	oots, leaf packs, la	irge submerged wo	ood, riffles, deep p	ools, etc.) <b>:</b>	
Aquatic Organisms Ob N/A	served (	list):								
Disturbances (ex: livesto N/A	ock access	s, manure i	n waterboo	dy, waste discl	harge pi	ipes):				
Observation Notes:	920	191 W	ge san ca	D) 98						
Ephemeral upland drain	age thro	ugh mixed	1 woods f	forest.						







## **Linear Waterbody Data Sheet**

<b>Survey Description</b>	n								
Project Name:	Waterk	ody Name	):		Waterbo	ody ID:		Date:	
Line 5 Relocation Project	t	Unnam	ed swales	i		sasw02	4,sasw025,sas	w026,sasw027	10/15/2019
State: WI	County: Ashland			Company: WEST			Member Initials	sasw024 sasw025 sasw026	8213,8217 8233,8235 8238,8239 8242, 8247
Tract Number(s): WI-AS-045.009, WI-AS-	045.010			<b>earest Mile</b> /A	post		Associated W wasw047e	etland ID(s):	
Survey Type: (check one)		enterline	□Re-Ro	ute	□Access Road		⊠Other: Alter	native	
Physical Attribute	s								
Stream Classification: (check one)	⊠E	phemeral	□Interm	ittent	□Perennial				
Waterbody Type: (check one)	River	☐ Stream	☐ Ditch		Canal   Oth	er: topo	ographic swales		
OHWM Width: 1 ft.		I Indicator: Il that apply)		☐ Clear lin	ie ⊠Shelvir	ng	□Wrested vegetation	□Scourin	g □Water staining
Height: 3in N/A⊠		⊠Bent, matted vegetation	, or missing	g □Wra	ck line □Litter a debris	ind	☐ Abrupt plant community cha		racteristic change
Width of Waterbody - T Bank to Top of Bank:	op of	Width of Wate	rbody - To	e of Slope	Width of Waterb Water Edge:	ody - W	ater Edge to	Depth of Wate	r:
_ <u>3_</u> ft.			_ <u>3_</u> ft.		N/A⊠	ft	i.	N/A⊠	ft.
Sinuosity: (check one) ⊠ Straight	ng	Water velocity (Approx.)  — N/A⊠	r: fps		Bank height Right: Left:	0.75 ft.		Bank slope Right Lef	70 degrees
Qualitative Attribu	tes								·
Water Appearance: (check one)	No water	□Clear	□Turbid	□Sh on su		ırface cum	□Algal mats	□Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock%	□ Boulder %	⊠ Cobble <u>10</u> %	□ Grav	el 🗆 Sand _%%	⊠ Silt/ c	, ,	c □ Other:	
Width of Riparian Zone	(che	getative Layers eck all that apply) g. DBH of Dom		⊠ Trees		olings/Sh	nrubs:	☐ Herbs	
N/A⊠ Dominant Bank Vegeta	(ард	prox.)		<u>10</u> 111.	_	<u>2</u> in.	_	"1:	
Conifers dominant tree s		oies balsamea, I	Picea glaud	a, pinus res	sinosa, little herba	ceous la	ayer		
Aquatic Habitats (ex: su	ıbmerged or	emerged aquatic	vegetation,	overhanging	banks/roots, leaf pac	cks, large	submerged wood	, riffles, deep pool	s):
None, no water  Aquatic Organisms Ob	served (lis	st):							
none	,	,							
T&E Species Observed	l (list):								
<b>Disturbances</b> (ex: liveston Residential house. Sasw			•	•	,				
Waterbody is: (check one)	⊠ N	latural	☐ Artific	cial, man-m	ade □ Manip	oulated			
Stream Quality <sup>a</sup> : (check one)	□ H	ligh	⊠ Mode	erate	 □ Low				

Waterbody ID:
sasw024,sasw025,sasw026,sasw027

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel

width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
Notes:
4 topographic swales included on 1 form due to similar hydrologic function and substrate. All swales lacked water and appear to be topographic driven swales that drain south to White River.
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)



















# **APPENDIX F**

Waterbody Data Sheets
Part 3 of 24

## **Linear Waterbody Data Sheet**

Survey Description	n											
Project Name:		Waterbo	ody Name	<b>e</b> :			W	laterbody ID:			Date:	
Line 5 Relocation Projec	t	White R	iver				sa	asw023			10/14/2019	
State:	County:		С	ompany:			Crew I	Member Initials:		Photos:		
WI	Ashland		W	/EST			ES, AS	8		8196-99	,8201,05-06	
Tract Number(s):			N	earest Mile	enost			Associated We	etland			
WI-AS-048.007, WI-AS-0	049 005			/A	<b>,</b>							
Survey Type:	0 10.000							wasw048f				
(check one)	□С	enterline	⊠Re-Ro	ute	□Ad	ccess Road		□Other:				
Physical Attributes	S											
Stream Classification: (check one)		'nh am and		:44 a m 4	⊠ D.							
,		phemeral	□Interm	ittent	⊠P6	erennial						
Waterbody Type: (check one)	River	☐ Stream	☐ Ditch		Canal	☐ Othe	er:					
OHWM		I Indicator:						5714/				
<b>Width:</b> 65_ft.	(Crieck a	и инасарруу		☐ Clear lir on bank	ne	⊠Shelvin	g	⊠Wrested vegetation	L	Scouring	g □Water staining	
Height: 2 ft. N/A□		⊠Bent, matted, ovegetation	or missin	g □Wra	ck line	□Litter and debris	nd	☐ Abrupt plant community char		Soil cha	racteristic chang	je
Width of Waterbody - T Bank to Top of Bank:	op of	Width of Waterk to Toe of Slope:		e of Slope		of Waterb	ody - W	ater Edge to	<b>Depth</b> (Approx.)	of Wate	r:	
<u>15</u> ft.		_	<u>80</u> ft.		N/A□		<u>60</u> ft		√A□		<u>6</u> ft.	
Sinuosity:		Water velocity:				height		E	Bank s	lope		
(check one)		(Approx.)				Right:				Right		
_ = = = = = = = = = = = = = = = = = = =		1	<u>1.5</u> fps	i		Left:	<u>6</u> f	t.		Lef	<u>90_</u> degre <b>t</b> :	es
⊠Meanderir	ng	N/A□				_	<u>10</u> f	t.			<u>90</u> degr	ees
Qualitative Attribu	tes											
Water Appearance: (check one)	No water	□Clear	⊠Turbid			□Su	rface	□Algal □	Othe	r: mud/ o	clay color, reddis	sh
				on st	urface	SC	um	mats				
Substrate:	Bedrock	☐ Boulder ☐	Cobble	☐ Grav	el [	☐ Sand □	⊠ Silt/ c	clay   Organic	: 🗆	Other:		
% of Substrate:	%	%%%% _1						<u> </u>				
Width of Riparian Zone	· Ve	getative Layers:										
	(che	eck all that apply)		□Trees	:	□ Sap	lings/Sh	nrubs:	□ Her	bs		
<u>50</u> ft. N/A□		g. DBH of Domir	nants:	12	in.	_	2	_in		in.		
Dominant vegetation:	(ap)											
Rhus glabra, Pinus strob	us, Abies I	balsamea, Solidag	go specie	s								
Aquatic Habitats (ex: su	ihmeraed or	r emerged aguatic v	enetation	overhanging	hanks/ro	nots leaf nac	ks larne	submerged wood	riffles	deen nool	6).	
Limited log jams on bank	-		_			•	no, largo	oubmorged weed,	111100,	acop pool		
Aquatic Organisms Ob	served (lis	st):										
Fish assumed present al	though no	ne observed										
T&E Species Observed	(list):											
Disturbances (ex: livesto	nck access	manure in waterhoo	lv waste d	lischarge nine	26)·							
Significant erosion on bar		andro in waterbook	.,, wasie 0	onaige pipe	,.							
Waterbody is: (check one)	⊠ N	latural	☐ Artifi	cial, man-m	ade	☐ Manip	ulated					
Stream Quality a:	ПН	ligh	⊠ Mode			□Low						

а	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
	<b>Moderate Quality:</b> Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
	<b>Low Quality:</b> Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
ı	Notes:
Er	osion on banks, limited bank substrate variety. Swift flow
	Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

Waterbody ID: sasw023













## **Linear Waterbody Data Sheet**

<b>Survey Descriptio</b>	n											
Project Name:		Waterbo	dy Nan	ne:			w	aterbody ID:			Date:	
Line 5 Relocation Project	:t	Unname	d tribut	tary to White	River			sw028		1	0/15/1	19
State:	County:			Company:			Crew I	Member Initials	<b>:</b> :	Photos:		
WI	Ashland		1	West			ES, AS	3		8302, 830	5,8309	
Tract Number(s):				Nearest Mile	post			Associated W	etland	ID(s):		
WI-AS-048.007				N/A								
Survey Type: (check one)	□ Car	nterline	□Re-R	oute		cess Road	1	⊠Other: Alter	native			
,		TICTIITIC		oute		cess road		Aother. Aiter	Tiative			
Physical Attribute Stream Classification: (check one)		nemeral	⊠Interr	mittent	□Pe	erennial						
Waterbody Type: (check one)	River	⊠ Stream	□ Ditc	ch 🗆 C	Canal	☐ Othe	er:					
OHWM Width: 4 ft.	OHWM In (check all th	ndicator: nat apply)		☐ Clear lin	е	⊠Shelvin	g	⊠Wrested vegetation		Scouring		⊒Water staining
Height: ft. N/A		Bent, matted, o	r missi	ng □Wra	ck line	□Litter ar	nd	☐ Abrupt plant community cha		∃Soil chara	acteristi	ic change
Width of Waterbody - T		/idth of Waterb	ody - T	oe of Slope	Width	of Waterb	ody - W	ater Edge to		of Water:		
Bank to Top of Bank:  6 ft.	tc	Toe of Slope: _	<u>6</u> ft.		Water	Edge:	<u>4</u> ft.		(Approx.,		8in	
Sinuosity:	VA.	Vater velocity:			N/A⊠ Bank I	neight			N/A⊠ Bank s	slone		
(check one)		Approx.)			Dank i	Right:			Dank (	Right:		
		1	fp	s		Left:	<u>2</u> f	t.		Left:	90	degrees
⊠Meanderii	ng N	I/A□					<u>3</u> ft.				90	degrees
Qualitative Attribu	tes											
Water Appearance: (check one)	<sup>]</sup> No water	□Clear	⊠Turbi	-	een ırface	□Su so	rface cum	□Algal mats	□Othe	r:		
	Bedrock	□ Boulder □	Cobble	e 🗵 Grav	el [	Sand [	⊠ Silt/ c	lay 🛭 Organi	с 🗆	Other:		
(check all that apply) % of Substrate:	%	%		% <u>10</u>	%	%	<u>90</u> %	<u>10</u> %		%		
Width of Riparian Zone		etative Layers:		⊠ Trees		⊠ San	lings/Sh	uruhe:	⊠ Her	hs		
60ft. N/A□		DBH of Domin	ants:	16		_ cup	3in			in.		
<b>Dominant vegetation:</b> Alnus incana dominant s	shrub, <i>Carex</i>	species, Scirpu	s, calaı	magrostis car	nadensi	s, Fraxinus	pennsy	/Ivanica tree				
Aquatic Habitats (ex: su	ubmerged or e	merged aquatic ve	getation	, overhanging	banks/ro	ots, leaf pac	ks, large	submerged wood	l, riffles,	deep pools	):	
log jams, leaf litter and le	eaf packs, la	rge woody debri	s									
Aquatic Organisms Ob	served (list)	:										
Fish												
T&E Species Observed	l (list):											
Disturbances (ex: livesto	ock access, ma	anure in waterbod	y, waste	discharge pipe	es):							
Erosion on banks, mann	nade metal bi	ridge for ATV ov	er strea	ım								
Waterbody is: (check one)	⊠ Nat	tural	☐ Arti	ificial, man-m	ade	☐ Manip	ulated					
Stream Quality <sup>a</sup> : (check one)	⊠ Hig	h	□ Мо	derate		□ Low						

<b>Moderate Quality:</b> Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
Notes:
Drains to White River
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

**High Quality:** Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Waterbody ID: sasw028







## **Waterbody Data Sheet**

Waterbody Date	Officet									
Description										
Project Name:						Date:			Waterbody S	urvey ID:
Line 5 Relocation Proj	ect					2019-08-29			sasa001e	
State:		County/	Parish:			USGS Wate	rbody Name			
WI		Ashland				UNT to the V	Vhite River			
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:	
Enbridge		NTT/DG	iL			46.499858			-90.911894	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		☑ Stream	า		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	✓ No Wa	ter	☐ Clear			Turbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	al Stream	□ Мо	derately	y Functional S		Functionally	Impaired Strea	am
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-mac	de 🗆	Manipulated				
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connect Swale	ting		
Sinuosity within Survey Corridor: (check one)	☐ Straigh	it	✓ Meano	lering						
The waterbody is a ep		iamago t		31000 u por		some of and o		g 1.10 101001 00	go anan k oxac	are carvey area.
Measurements										
Depth of Water:	ft.	N/A 🗹	Unknov	wn□ Wate	er Edge	e to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Width	n: <u>2</u> ft.
OHWM Indicator: (check all that apply)	□ CI	ear line o	on bank	□Shelvin	g	□Wrested v	egetation	□Scouring		☐Water staining
(orosa all that apply)		ent, matte ing veget		□Wrack I	line	Litter and	debris	□ Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□В€	edrock	□ Во	ulder [	Cobb	le □ G	Gravel	☐ Sand	<b>☑</b> Silt/ clay	□ Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	<b>U</b> 1	No						
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings/Sh	rubs	✓ Herbs				
Dominant Bank Vege Pinus strobus, Pteridio	<b>tation</b> (list um aquilinu	') <b>:</b> um.								
Aquatic Habitats (ex: s None.			quatic vegetal	tion, overhangin	ng banks/ro	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):	
Aquatic Organisms C None.	bserved (	(list):								
<b>Disturbances</b> (ex: live: Continues along clear				dy, waste disc	charge pi	ipes):				
Observation Notes: No water present at tir	me of surv	ey.								



sasa001e\_E (downstream)



sasa001e\_S (across)



sasa001e\_W (upstream)

### **Waterbody Data Sheet**

Tratorboay Bat	4 011000										
Description											
Project Name:						Date:			Waterbody S	urvey ID:	
Line 5 Relocation Pro	ject					2019-08-29			sasa002e		
State:		County/	Parish:			USGS Wate	rbody Name	:			
WI		Ashland				UNT to the	White River				
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude:		
Enbridge		NTT/DG	iL			46.4999641	8		-90.912621		
Survey Type: (check one)	☐ Centerl	ine	☐ Re-Ro	ute	<b>V</b> A	Access Road	□Facility	□Other			
Waterbody Type: (check one)	☐ River		✓ Stream	n		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	✓ No War	er	☐ Clear		□⊺	Turbid	☐Sheen or	n □Surfac	e Scum □A	lgal Mats □C	Other
Existing Condition <sup>a</sup> : (check one)	□ Highly	Function	al Stream	ı 🗆 N	Moderately	y Functional S	Surface Stream	Functionally	Impaired Strea	ım	
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-m	ade 🗆 I	Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem		☐ Interm	ittent		Perennial	☐ Connec Swale	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Meano	dering							
Measurements Depth of Water:	ft.	N/A 🗹	Unknov	wn□   <b>W</b> :	ater Edge	e to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Width	: <u>1</u> ft.	
OHWM Indicator:	<del></del>	ear line o		□Shelv		□Wrested v		✓ Scouring			na
(check all that apply)	□Ве	nt, matte	ed, or	□Wrac	Ü	□ Litter and	•	□ Abrupt plan change	t community	□Water stainin □Soil characte change	
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Cobb	le 🗆 (	Gravel	☐ Sand	<b>☑</b> Silt/ clay	□ Orgar	nic
Observations											
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	<b>V</b> 1	No							
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings/S	Shrubs	✓ Herbs					
Dominant Bank Vege Pinus strobus, Pteridi	etation (list um aquilinu	): im, Toxic	odendron	rydbergii							
Aquatic Habitats (ex: None.	submerged or	emerged ac	quatic vegeta	tion, overhan	ging banks/ro	oots, leaf packs, la	arge submerged v	wood, riffles, deep po	ools, etc.):		
Aquatic Organisms ( None.											
<b>Disturbances</b> (ex: live Powerline clearing ha	stock acces s influence	s, manure d the dire	in waterboo ection of th	dy, waste d ne channe	ischarge pi el.	ipes):					
Observation Notes: No water present at ti	me of surv	ey.					_				



sasa002e\_NE (downstream)



sasa002e\_SW (upstream)



sasa002e\_W (across)

**Open Waterbody Data Sheet** 

Open waterboo	iy Data	Snee									
Description											
Project Name:					Date:			Waterbody Survey ID:			
Line 5 Relocation Proj		2019-08-29			oasa001						
State: County/Parish:					USGS Waterbody Name:						
WI Ashland				White River Flowage							
Company: Crew Member Initials:				Latitude:			Longitude:				
Enbridge	NTT/D		SL	46.498543			-90.912228				
Survey Type: (check one)	☑ Center	ine	☐ Re-Route ☐		Access Road □ Facility □		□Other	Other			
Waterbody Type: (check one)	☐ Stock F	ond	☐ Natural Pond		Fishing Pond	✓ Lake	☐ Other				
Water Appearance: (check one)	pearance:   No Water		✓ Clear   □ 1		urbid □Sheen on □Sur Surface		□Surfac	face Scum □Algal Mats □Other			
Feature Quality:	□ High		✓ Moderate		Low						
Feature Description:	✓ Natura		☐ Artificial, man-	-made 🗆 I	Manipulated						
Description Notes: Feature is a large lake edge of the lake with v									fringe is preser	nt along the	
Measurements											
Depth of Water:	ft.	N/A□	Unknown  ✓								
OHWM Indicator: (check all that apply)	□С	☐ Clear line on bank ☐ Shelving			□Wrested vegetation □Scouring			□Water staining			
<b>☑</b> Bent,			nt, matted, or □Wrack line ng vegetation			□Litter and debris □Abrupt plan change			nt community		
Dominant Substrate: (check all that apply)	□Ве	edrock	☐ Boulder	☐ Cobb	le 🗆 C	Gravel	☐ Sand	□ Silt/ clay	<b>⊻</b> Orga	anic	
Observations											
Riparian Zone Preser (check one)	nt: 🗹 Ye	es	□ No								
Vegetation Layers: (check all that apply)	□ Tr		<b></b> Sapling		✓ Herbs						
Dominant Bank Vege Salix petiolaris, Salix ii	tation (list nterior, Typ	) <u>:</u> sha x gla	uca, Carex lacust	tris.							
Aquatic Habitats (ex: standing water is pres	submerged or ent throug	emerged a hout the	quatic vegetation, overflake providing ha	hanging banks/ro bitat for mar	oots, leaf packs, la ny aquatic org	irge submerged w anisms.	ood, riffles, deep p	ools, etc.):			
Aquatic Organisms C Songbirds, cormorants	Observed s, frogs, ac	<i>(list)</i> : uatic inv	ertebrates, minno	ows, insects.							
<b>Disturbances</b> (ex: live None.	stock acces	s, manure	in waterbody, waste	e discharge pi	pes):						
Observation Notes: None.											



oasa001\_S



oasa001\_SE



oasa001\_SW

### **Waterbody Data Sheet**

Description												
Project Name:							Date:			Waterbody Survey ID:		
Line 5 Relocation Project							2019-09-10			sasa009e		
State: County/Pa							USGS Wate	rbody Nam	<b>e</b> :			
WI	Ashland	land			UNT to Whit	e River						
Company:	Crew Me	ew Member Initials:			Latitude:			Longitude:				
Enbridge		NTT/DGL					46.495738			-90.911126		
Survey Type: (check one)	rvey Type: 🗹 Center		erline   Re-Route		[	□A	ccess Road	□ Facility □ Other				
Waterbody Type: (check one)	erbody Type:   River		✓ Stream		[		Ditch	☐ Swale	☐ Cana	I ☐ Other		
Water Appearance: (check one)	Appearance:   No Water		□ Clear		[	□T	urbid	☑Sheen of Surface	on □Surface Scum □Algal Mats		Algal Mats □Other	
Existing Condition <sup>a</sup> :	☐ Highly	Function	al Stream	n [	Moderat	tely	Functional S		Functionally	Impaired Stre	eam	
Feature Description: (check one)	✓ Natura		☐ Artifici	al, man	ı-made l	□ N	/lanipulated					
Flow Regime: (check one)	<b>E</b> phen	neral	☐ Interm	nittent	[	□F	Perennial	☐ Conne Swale	ecting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	nt	✓ Mean	dering								
and scattered debris l	ay across	irie water	body.									
Measurements												
Depth of Water: 0.25	<u>ft</u> .	N/A□	Unkno	wn□	Water Ec	lge	to Water Ed	<b>ge</b> : 2 f	t. N/A 🗆	OHWM Wid	<b>th:</b> 2 ft.	
OHWM Indicator:	□ C	lear line o	on bank	□Sh	elving		<b>☑</b> Wrested v	egetation	✓ Scouring		□Water staining	
(check all that apply)		☑Bent, matted, or  ☐Wrack line  missing vegetation			_		□Litter and	•	<b>☑</b> Abrupt plar	<ul> <li>☑Abrupt plant community change</li> <li>☑Soil change change</li> </ul>		
Dominant Substrate: (check all that apply)		edrock		oulder	□ Co	bbl	e <b>r</b>	Gravel	<b>☑</b> Sand	☑ Silt/ cla		
Observations												
Riparian Zone Preser	nt: 🗆 Y	es		No								
Vegetation Layers: (check all that apply)	<b>☑</b> T	rees	V	Sapling	js/Shrubs		✓ Herbs					
Dominant Bank Vege Alnus incana, Abies b	<b>tation</b> (lis	t): Ranuncul	us acris.									
Aquatic Habitats (ex. Pools of standing water	submerged or er and falle	emerged acen trees p	quatic vegeta providing h	ation, over habitat 1	hanging banl for frogs o	ks/ro	ots, leaf packs, la quatic inverte	irge submerged brates.	I wood, riffles, deep p	oools, etc.):		
Aquatic Organisms ( None.	bserved	(list):										
<b>Disturbances</b> (ex: live None.	stock acces	s, manure	in waterbo	ody, wast	e discharge	e pip	pes):					
Observation Notes: Fallen trees and debri	s in waterl	oody.										



sasa009e\_N (downstream)



sasa009e\_S (upstream)



sasa009e\_W (across)

# **APPENDIX F**

Waterbody Data Sheets
Part 4 of 24

Waterbody Data 3	Heet							
Description								
Project Name:				Date:			Waterbody S	urvey ID:
Line 5 Relocation Project				2019-10-11			sasc042e	
State:	Co	unty/Parish:		USGS Wat	erbody Name	:		
WI	As	hland		UNT to Wh	ite River			
Company:	Cre	ew Member Init	tials:	Latitude:			Longitude:	
Enbridge	BR	G/JSW		46.495323			-90.896164	
Survey Type:	Centerline	☐ Re-Ro	ute	☐Access Road	□Facility	□Other		
,	River	✓ Strean	1	☐ Ditch	☐ Swale	☐ Canal		Other
Water Appearance:  (check one)	No Water	☐ Clear		☑Turbid	☐Sheen or Surface	n □Surfac	e Scum □A	lgal Mats □Other
	Highly Fur	nctional Stream	☐ Modera	tely Functional		☐ Functionally	Impaired Strea	am
Feature Description:	Natural	☐ Artificia	al, man-made	☐ Manipulated				
Flow Regime:	Ephemera	I ☐ Interm	ittent	☐ Perennial	☐ Connection Swale	ting		
Sinuosity within Survey Corridor: (check one)	Straight	✓ Meand	lering					
The feature has very stee		.,	,					
Measurements								
Depth of Water: 0.5 ft.	N/A	\□ Unknov	vn□ Water Ed	dge to Water E	dge: <u>1</u> ft.	N/A□	OHWM Width	n:1ft.
OHWM Indicator: (check all that apply)	☐ Clear	line on bank	□Shelving	□Wrested	/egetation	<b>☑</b> Scouring		☐Water staining
(оноох ан так арруу)		matted, or vegetation	□Wrack line	□Litter and	debris	□ Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Bedro	ock 🗆 Bo	ulder 🗆 Co	obble $\Box$	Gravel	□ Sand	<b></b> Silt/ clay	□ Organic
Observations								
Riparian Zone Present:	☐ Yes	<u> </u>	No					
Vegetation Layers: (check all that apply)	☑ Trees		Saplings/Shrubs	☑ Herb	3			
Dominant Bank Vegetation Abies balsamea, Picea gla lateriflorum.	<b>on</b> <i>(list)</i> : auca, Pop	ulus tremuloide	s, Cornus canad	densis, Solidago	altissima, Ru	bus idaeus, Th	uja occidentali	s, Symphyotrichum
Aquatic Habitats (ex: submit Woody debris.	erged or eme	rged aquatic vegeta	tion, overhanging ban	nks/roots, leaf packs,	large submerged v	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms Observance.	erved (list)	):						
<b>Disturbances</b> (ex: livestock None.	caccess, m	anure in waterboo	dy, waste discharg	e pipes):				
Observation Notes: Water flow is slow, and as	such ther	re is some pote	ntial aquatic hab	oitat. Moss is pre	esent on the b	anks, and the h	ill the stream	is located on is steep.



sasc042e\_E (upstream)



sasc042e\_N (across)



sasc042e\_W (downstream)

vvaterbody bat	a Sileet										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Pro	ject					2019-09-10			sasa010e		
State:		County/	Parish:			USGS Wate	rbody Name	:			
WI		Ashland				UNT to Whit	-				
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude:		
Enbridge		NTT/DG				46.49481170	3		-90.911363		
Survey Type:	✓ Center	ine	☐ Re-Ro	nute		Access Road	□Facility	□Other			
(check one)											
Waterbody Type: (check one)	☐ River		✓ Stream	n		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear			Γurbid	☐Sheen on Surface	Surfac	e Scum 🗆	☐Algal Mats ☐	Other
Existing Condition a: (check one)	☐ Highly	Function	al Stream	1 🗆	Moderately	y Functional S		Functionally	Impaired Str	ream	
Feature Description:	✓ Natura		☐ Artifici	al, man-r	made $\square$	Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connect	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	nt	✓ Mean	dering							
Description Notes:											
Measurements											
Depth of Water:	ft.	N/A 🗹	Unkno	wn 🗆 🛚 🗸	Vater Edge	to Water Ed	<b>ge:</b> ft.	N/A	OHWM Wic	dth: 2 ft.	
OHWM Indicator:	□ C	ear line o	on bank	□She	lving	□Wrested v	egetation	□Scouring		□Water staini	ng
(check all that apply)		ent, matte ing veget		□Wra	ck line	□Litter and o	debris	✓Abrupt plan change	t community		
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	□ Cobb	le 🗹 🤆	Gravel	□ Sand		ay □ Orga	nic
Observations											
Riparian Zone Prese	nt: 🗆 Ye	es	ď	No							
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings	/Shrubs	✓ Herbs					
Dominant Bank Vege	etation (list	·):									
Abies balsamea, Care	ex gracillim	a.									
Aquatic Habitats (ex: No water present thro				ition, overha	anging banks/r	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	ools, etc.):		
Aquatic Organisms (											
None.	obsci ved	1131/1									
Disturbances (ex: live	stock acces	s, manure	in waterbo	dy, waste	discharge p	ipes):					
None.											
Observation Notes:											
Fallen trees and debr	s present.										



sasa010e\_N (downstream)



sasa010e\_S (upstream)



sasa010e\_W (across)

Trace. Bedy Back	4 011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Pro	ect					2019-09-10			sasa011e	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Ashland	I			UNT to Whit	e River			
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		NTT/DG	SL			46.494739			-90.91183331	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		✓ Strean	n		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	✓ No War	ter	☐ Clear		□Т	Turbid	☐Sheen or Surface	n □Surfac	e Scum □Al	gal Mats □Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	nal Stream		Moderately	/ Functional S		Functionally	Impaired Strea	m
Feature Description: (check one)						Manipulated				
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connection Connection	ting		
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Mean	dering						
Measurements										
Depth of Water:	ft.	N/A 🗹	Unknov	wn 🗆 🛮 🕦	/ater Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Width	: <u>2</u> ft.
OHWM Indicator: (check all that apply)	□ Cl	ear line	on bank	□Shel	ving	<b>☑</b> Wrested v	egetation	Scouring		□Water staining
(опсок ан инасарруу)		nt, matte		□Wra	ck line	<b>☑</b> Litter and	debris	✓ Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Cobb	le 🗆 🤇	Gravel	☐ Sand	<b>坚</b> Silt/ clay	☐ Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	V	No						
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings/	/Shrubs	☑ Herbs				
Dominant Bank Vege Abies balsamea, Rub										
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegeta	tion, overha	nging banks/ro	oots, leaf packs, la	arge submerged v	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms O None.	Observed (	(list):								
<b>Disturbances</b> (ex: live None.	stock acces	s, manure	in waterboo	dy, waste	discharge pi	pes):				
Observation Notes: Feature is one of a gr	oup of drai	nageway	s that run	down a s	steep side	slope and int	o a lake. No v	vater currently	present.	



sasa011e\_N (downstream)



sasa011e\_S (upstream)



sasa011e\_W (across)

Waterbody Date	Officer									
Description										
Project Name:						Date:			Waterbody	Survey ID:
Line 5 Relocation Proj	ect					2019-10-11			sasd014e	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Ashland				UNT to Whit	e River			
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		AGG/MI	DL			46.493847			-90.897557	
Survey Type: (check one)	✓ Center	ine	☐ Re-Ro	ute	□A	Access Road	□Facility	□Other		
Waterbody Type:	☐ River		✓ Stream	า		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	✓ No Wa	ter	☐ Clear		□Т	urbid	☐Sheen or Surface	n □Surfac	e Scum 🛚	Algal Mats □ Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	al Stream	□ Mo	oderately	/ Functional S		Functionally	Impaired Stre	eam
Feature Description: (check one)	✓ Natura		☐ Artificia	al, man-ma	ide 🗆 l	Manipulated				
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec Swale	ting		
Sinuosity within Survey Corridor: (check one)	☐ Straigh	nt	✓ Meano	dering						
Ephemeral feature original	, J		,	,						
Measurements										
Depth of Water:	_ft.	N/A 🗹	Unknov	wn □ <b>W</b> a	ter Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Wid	<b>th:</b> <u>2</u> ft.
OHWM Indicator: (check all that apply)	<b></b> ✓ C	ear line	on bank	□Shelvi	ng	□Wrested v	egetation	□Scouring		☐Water staining
(Check all that apply)		ent, matte ing veget		□Wrack	line	□Litter and o	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□В€	edrock	□ Во	ulder	☐ Cobbl	le 🗆 G	Gravel	☐ Sand	<b>坚</b> Silt/ cla	ay 🗆 Organic
Observations										
Riparian Zone Presen	it: 🗆 Ye	es		No						
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings/S	hrubs	☐ Herbs				
Dominant Bank Vege Thuja occidentalis.	tation (list	·):								
Aquatic Habitats (ex: s None.	submerged or	emerged ac	quatic vegeta	tion, overhang	ing banks/ro	oots, leaf packs, la	irge submerged v	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms C None.	bserved	(list):								
<b>Disturbances</b> (ex: lives None.	stock acces	s, manure	in waterboo	dy, waste dis	scharge pi	pes):				
Observation Notes: The feature is a tributa	ary to strea	nm sasd0	13i. The b	anks are h	nighly ero	ded.				



sasd014e\_E (downstream)



sasd014e\_S (across)



sasd014e\_W (upstream)

# **APPENDIX F**

Waterbody Data Sheets
Part 5 of 24

waterbody Data Si	ieet									
Description										
Project Name:						Date:			Waterbody Su	ırvey ID:
Line 5 Relocation Project						2019-10-11			sasd013i	
State:	С	ounty/Pa	arish:			USGS Wate	rbody Name	:		
WI	A	shland				UNT to Whit	e River			
Company:	С	rew Men	nber Init	ials:		Latitude:			Longitude:	
Enbridge	A	AGG/MDL	-			46.493138			-90.898490	
Survey Type:	enterlin	e 🗆	∃ Re-Rou	ıte	□A	ccess Road	□Facility	□Other		
Waterbody Type:	River	V	Stream	l		Ditch	☐ Swale	☐ Canal	□ C	Other
Water Appearance:   (check one)	lo Wate	r 🔽	Clear		□Т	urbid	☐Sheen on Surface	□Surfac	e Scum □Al	gal Mats □Other
Existing Condition a:	lighly F	unctional	Stream	<b>Y</b> N	1oderately	Functional S		☐ Functionally	Impaired Strea	m
Feature Description:   (check one)	latural		Artificia	l, man-m	ade 🗹 l	Manipulated				
Flow Regime:	pheme	ral 🔽	<b>1</b> Intermi	ttent	F	Perennial	☐ Connec	ting		
Sinuosity within Survey Corridor:	traight	V	<b>1</b> Meand	ering						
Water observed at time of	survey,	but no fic	ow visible	Э.						
Measurements										
Depth of Water:1ft.	N	/A 🗆	Unknow	/n□ Wa	ater Edge	to Water Ed	<b>ge:</b> 2 ft.	N/A 🗆	OHWM Width	: <u>3</u> ft.
OHWM Indicator:	<b>V</b> Cle∶	ar line on	hank	□Shelv	vina .	□Wrested v	enetation	Scouring		□Water staining
(check all that apply)	<b>☑</b> Bent	t, matted, g vegetat	, or	□Wracl	Ü	□Litter and o	-	□ Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bed	rock	□ Bou	ılder	☐ Cobbl	le 🗆 G	Gravel	□ Sand	<b></b> Silt/ clay	☐ Organic
Observations										
Riparian Zone Present:	☐ Yes		<b>I</b>	10						
Vegetation Layers: (check all that apply)	<b>☑</b> Tree	es	<b>☑</b> S	Saplings/S	Shrubs	✓ Herbs				
Dominant Bank Vegetation Populus tremuloides, Abier	<b>on</b> <i>(list)</i> : s balsar	nea, Car	ex sp.							
Aquatic Habitats (ex: submer Standing water, debris.	rged or en	merged aqua	atic vegetati	on, overhan	ging banks/ro	oots, leaf packs, la	rge submerged v	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obse None.	rved (lis	st):								
<b>Disturbances</b> (ex: livestock Fence crossing channel.	access,	manure in	waterbod	ly, waste di	ischarge pi <sub>l</sub>	pes):				
Observation Notes: The feature is an intermitte hydrology is partially fed by		-		-		western side	of the waterb	oody is adjacen	t to a hay field.	It appears that the



sasd013i\_E (downstream)



sasd013i\_S (across)



sasd013i\_W (upstream)

Waterbody Data Sil	CCL							
Description								
Project Name:				Date:			Waterbody S	urvey ID:
Line 5 Relocation Project				2019-10-11			sasc041p	
State:	County	//Parish:		USGS Wate	rbody Name:			
WI	Ashlan	d		Rock Creek				
Company:	Crew N	lember Initial	s:	Latitude:			Longitude:	
Enbridge	BRG/J	SW		46.490847			-90.900184	
Survey Type:  (check one)	enterline	☐ Re-Route		Access Road	□Facility	□Other		
Waterbody Type: ☐ Ri	ver	<b>☑</b> Stream		Ditch	☐ Swale	☐ Canal		Other
Water Appearance:	Water	☐ Clear	V	Turbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
	ighly Functio	nal Stream	☐ Moderate	ly Functional S		☐ Functionally	Impaired Strea	am
Feature Description: V Na (check one)	atural	☐ Artificial, r	man-made 🗆	Manipulated				
Flow Regime:	ohemeral	☐ Intermitte	nt 🗹	Perennial	☐ Connect Swale	ing		
Sinuosity within Survey Corridor:	raight	✓ Meanderi	ng					
·								
Measurements								
Depth of Water: 1 ft.	N/A□	Unknown	□ Water Edg	e to Water Ed	<b>ge:</b> 9 ft.	N/A□	OHWM Width	n: <u>10</u> ft.
OHWM Indicator: (check all that apply)	☐ Clear line	on bank	Shelving	□Wrested v	egetation	<b>☑</b> Scouring		☐Water staining
	☑Bent, matt missing vege		∃Wrack line	□Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Bedrock	☐ Bould	er 🗆 Cobl	ole 🗆 C	Gravel	<b>☑</b> Sand	□ Silt/ clay	☐ Organic
Observations								
	□ Yes	<b>☑</b> No						
Vegetation Layers: (check all that apply)	✓ Trees	<b></b> Sap	olings/Shrubs	✓ Herbs				
Dominant Bank Vegetation Thuja occidentalis, Tilia ame balsamifera.	<b>n (list):</b> ericana, Pice	ea glauca, Pop	ulus tremuloide	es, Fraxinus niç	gra, Agrimonia	a striata, Symp	hyotrichum lat	eriflorum, Populus
Aquatic Habitats (ex: submer Overhanging roots, woody o	iedris.	aquatic vegetation,	overhanging banks/	roots, leaf packs, la	irge submerged w	ood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obser None.	ved (list):							
Disturbances (ex: livestock a Runoff from upslope crop fie	access, manur eld.	e in waterbody, v	waste discharge p	pipes):				
Observation Notes: The feature is somewhat er	osional, with	sparse herbad	ceous vegetatio	on in areas. Ma	ny roots are v	visible where th	ne bank is sco	ured/shelved.



sasc041p\_E (downstream)



sasc041p\_N (across)



sasc041p\_W (upstream)

Trater Bedy Bat	4 011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Pro	ject					2019-09-10			sasa013e	
State:		County/	/Parish:			USGS Wate	rbody Name	:		
WI		Ashland	d			UNT to Rock	Creek			
Company:		Crew M	ember Init	ials:		Latitude:			Longitude:	
Enbridge		NTT/D	GL			46.489528			-90.907534	
Survey Type: (check one)	☐ Center	line	☐ Re-Ro	ute	<b>V</b> A	ccess Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		☐ Stream	1		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	✓ No Wa	ter	☐ Clear		□Т	urbid	☐Sheen or Surface	□Surfac	e Scum □Al	gal Mats □Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	nal Stream	□ Mo	oderately	Functional S		Functionally	Impaired Strea	m
Feature Description: (check one)				al, man-ma	ide 🗹 l	Manipulated				
Flow Regime: (check one)	☑ Ephem	eral	☐ Interm	ittent	□ F	Perennial	☐ Connec Swale	ting		
Sinuosity within Survey Corridor: (check one)	<b>☑</b> Straigh	nt	☐ Meand	lering						
Measurements										
Depth of Water:	ft.	N/A 🗹	Unknov	vn□ Wa	ter Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Width	: <u>1</u> ft.
OHWM Indicator: (check all that apply)	□С	lear line	on bank	□Shelvi	ng	□Wrested v	egetation	Scouring		□Water staining
(спеск ан тас арруу)		ent, matte ing vege		□Wrack	line	□Litter and	debris	✓ Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☐ Cobbl	le 🗆 G	Gravel	☐ Sand	<b></b> Silt/ clay	□ Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	<u> </u>	No						
Vegetation Layers: (check all that apply)	□ Tr	rees		Saplings/S	hrubs	✓ Herbs				
Dominant Bank Vege Phalaris arundinacea	Cirsium a	rvense, S		•	Ū					
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegetat	tion, overhang	ing banks/ro	oots, leaf packs, la	irge submerged v	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms ( None.	Observed	(list):								
<b>Disturbances</b> (ex: live None.	stock acces	s, manure	in waterboo	dy, waste dis	scharge pi	pes):				
Observation Notes: No water currently pre	esent.									



sasa013e\_N (downstream)



sasa013e\_S (upstream)



sasa013e\_W (across)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	y Survey ID:	
Line 5 Relocation Pro	ject					2019-09-10			sasa012e		
State:		County/	Parish:			USGS Water	body Name	: :			
WI		Ashland				UNT to Rock	Creek				
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude	:	
Enbridge		NTT/DG	iL.			46.489539			-90.911548	8	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type:	☐ River		✓ Stream	n		Ditch	☐ Swale	☐ Canal		☐ Other	
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear		□T	urbid	☐Sheen on Surface	□Surfac	e Scum [	□Algal Mats	□Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	al Stream	□ M	oderately	/ Functional S		Functionally	Impaired St	tream	
Feature Description: (check one)	☐ Natural		✓ Artificia	al, man-ma	ade 🗆 I	Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connection	ting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Meano	dering							
·											
Measurements											
Depth of Water:	ft.	N/A🗹	Unknov	wn 🗆 🛮 Wa	iter Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Wi	<b>dth:</b> 1 f	t.
OHWM Indicator: (check all that apply)	□ Cl	ear line o	on bank	□Shelvi	ing	□Wrested ve	egetation	Scouring		□Water	staining
(oncon all that apply)		nt, matte		□Wrack	( line	□Litter and o	lebris	<b>☑</b> Abrupt plan change	t communit	y □Soil cha change	aracteristic
Dominant Substrate: (check all that apply)	□В€	edrock	□ Во	ulder	□ Cobb	le □ G	iravel	☐ Sand	<b>I</b> Silt/ cl	lay 🗆	Organic
Observations											
Riparian Zone Preser (check one)	nt: 🗹 Ye	es	<u> </u>	No							
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings/S	Shrubs	☑ Herbs					
Dominant Bank Vege Juncus effusus, Phala	e <b>tation</b> (list aris arundir	): acea.									
Aquatic Habitats (ex: Pools of standing wat	submerged or er provide	emerged achabitat fo	quatic vegetal or frogs.	tion, overhang	ging banks/ro	oots, leaf packs, la	rge submerged v	wood, riffles, deep po	ools, etc.):		
Aquatic Organisms ( None.	Observed (	(list):									
<b>Disturbances</b> (ex: live Farm equipment used			in waterboo	dy, waste di	scharge pi	pes):					
Observation Notes: Feature associated w	ith wetland	wasa052	2e.								



sasa012e\_E (downstream)



sasa012e\_S (across)



sasa012e\_W (upstream)

Trate: Beay Bat	4 011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Pro	ject					2019-09-12			sasa022e	
State:		County/	/Parish:			USGS Wate	rbody Name	:		
WI		Ashland	d			UNT to Roc	k Creek			
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		NTT/DO	GL			46.489473			-90.907564	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	☐ River		☐ Stream	า	V	Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear			Γurbid	☐Sheen or Surface	n □Surfac	e Scum □Al	gal Mats □Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	nal Stream	<u> </u>	Moderately	y Functional S		Functionally	Impaired Strea	m
Feature Description: (check one)	☐ Natural		✓ Artificia	al, man-m		Manipulated				
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec Swale	ting		
Sinuosity within Survey Corridor: (check one)	<b>☑</b> Straigh	nt	□ Meand	dering						
Measurements										
Depth of Water:	ft.	N/A 🗹	Unknov	wn□ W	ater Edge	e to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Width	: <u>2</u> ft.
OHWM Indicator:	□ Cl	ear line	on bank	□Shel	ving	□Wrested v	egetation	Scouring		□Water staining
(check all that apply)		ent, matte ing vege		□Wrad	ck line	□Litter and	debris	<b>☑</b> Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Cobb	le 🗆 (	Gravel	□ Sand	<b>坚</b> Silt/ clay	☐ Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	<b>V</b> 1	No						
Vegetation Layers: (check all that apply)	☐ Tr	ees		Saplings/	Shrubs	☑ Herbs				
Dominant Bank Vege Phalaris arundinacea,	Cirsium a	rvense, (		•		•				
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegeta	tion, overhai	nging banks/r	oots, leaf packs, l	arge submerged v	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms ( None.	Observed (	(list):								
<b>Disturbances</b> (ex: live Receives runoff from				dy, waste o	discharge p	ipes):				
Observation Notes: Ditch runs downhill in	to an area	that pool	ls water.							



sasa022e\_N (downstream)





sasa022e\_W (across)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Pro	ject					2019-09-10			sasa014i		
State:		County/	Parish:			USGS Wate	rbody Name	<u> </u>			
WI		Ashland				Rock Creek					
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude:		
Enbridge		NTT/DG	iL .			46.487529			-90.911459		
Survey Type: (check one)	☑ Centerle	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type:	☐ River		☑ Stream	า		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear			Turbid	□Sheen on Surface	□Surfac	e Scum 🛚	Algal Mats	□Other
Existing Condition <sup>a</sup> :	☐ Highly	Function	al Stream		Moderatel	y Functional S		Functionally	Impaired Str	ream	
Feature Description:	✓ Natural		☐ Artificia	al, man-n	nade 🗆	Manipulated					
Flow Regime: (check one)	☐ Ephem	eral	☑ Interm	ittent		Perennial	☐ Connect	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	✓ Meand	lering			J. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.				
<b>Description Notes:</b> Rock Creek is a mear for hay.	ndering inte	ermittent	waterbody	that flov	vs through	a forested de	epression. The	e land surround	ling the fores	st is actively cι	ıt and used
Measurements											
Depth of Water:	ft.	N/A 🗹	Unknov	vn 🗆 🛮 🕦	Vater Edge	e to Water Ed	<b>ge:</b> ft.	N/A	OHWM Wid	Ith: <u>3</u> ft.	
OHWM Indicator:	□ CI	ear line o	on bank	□Shel	lving	□Wrested v	egetation	Scouring		□Water sta	aining
(check all that apply)		nt, matte		□Wra	ck line	<b>☑</b> Litter and	debris	✓ Abrupt plan change	t community	√ □Soil char change	acteristic
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☐ Cobb	ole 🗹 (	Gravel	<b>坚</b> Sand	☐ Silt/ cla	ay 🗆 O	rganic
Observations											
Riparian Zone Preser (check one)	nt: 🗹 Ye	es	1	No							
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings/	/Shrubs	✓ Herbs					
Dominant Bank Vege Fraxinus pennsylvanio	etation (list ca, Populus	): s tremulo	ides, Phal	aris arun	ndinacea, (	Calamagrostis	canadensis,	Persicaria spp			
Aquatic Habitats (ex: Pools of water presen	submerged or t througho	emerged ac ut the wa	quatic vegetat terbody.	tion, overha	nging banks/r	oots, leaf packs, l	arge submerged w	vood, riffles, deep po	pols, etc.):		
Aquatic Organisms ( None.	Observed (	(list):									
<b>Disturbances</b> (ex: live None.	stock acces	s, manure	in waterboo	dy, waste	discharge p	ipes):					
Observation Notes: Fallen trees and debri	s cover the	e stream	bed.								



sasa014i\_E (downstream)



sasa014i\_N (across)



sasa014i\_W (upstream)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Pro	ject					2019-09-11			sasa015e		
State:		County/I	Parish:			USGS Wate	rbody Name	•			
WI		Ashland				UNT to Rock	Creek				
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude:		
Enbridge		NTT/DG	L/MAL			46.486404			-90.908943	3	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute	□Α	ccess Road	□Facility	□Other			
Waterbody Type: (check one)	☐ River		☐ Stream	1	<b>V</b>	Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear		□Т	urbid	□Sheen on Surface	□Surfac	e Scum 🗆	∃Algal Mats	□Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	al Stream	□ M	loderately	Functional S		Functionally	Impaired Str	ream	
Feature Description: (check one)	☐ Natural		Artificia	al, man-ma	ade 🗆 l	Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Intermi	ittent		Perennial	☐ Connect Swale	ting			
Sinuosity within Survey Corridor: (check one)	<b>☑</b> Straigh	t	☐ Meand	lering							
The waterbody is an e	spriemerar	uncii ioce	ated along	a graver i	oad. Guiv	rent goes und	er a farm acc	ess Ioau.			
Measurements											
Depth of Water:	ft.	N/A 🗹	Unknov	vn 🗆 🛮 Wa	ater Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Wic	<b>dth:</b> <u>2</u> ft.	
OHWM Indicator:	□ CI	ear line o	n bank	□Shelv	ing	□Wrested v	egetation	Scouring		□Water st	taining
(check all that apply)		nt, matte		□Wrack	k line	<b>☑</b> Litter and o	debris	☑Abrupt plan change	t community	/ □Soil cha change	racteristic
Dominant Substrate: (check all that apply)	□В€	edrock	□ Воι	ulder	☐ Cobbl	le 🗆 G	Gravel	<b>☑</b> Sand	<b>☑</b> Silt/ cla	ay □ C	Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	<b>I</b>	No							
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings/S	Shrubs	✓ Herbs					
Dominant Bank Vege Phalaris arundinacea	etation (list	·):									
Aquatic Habitats (ex: None.	submerged or	emerged aq	uatic vegetat	tion, overhanç	ging banks/ro	oots, leaf packs, la	irge submerged w	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms ( None.	Observed (	(list):									
<b>Disturbances</b> (ex: live None.	stock acces	s, manure	in waterboo	dy, waste di	scharge pi	pes):					
Observation Notes: No water currently pre	esent.										



sasa015e\_E (downstream)



sasa015e\_N (across)



sasa015e\_W (upstream)

Water body Data S	nicci									
Description										
Project Name:						Date:			Waterbody S	Survey ID:
Line 5 Relocation Project						2019-09-11			sasa016e	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Ashland				UNT to Roc	c Creek			
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		NTT/DG	iL			46.486439			-90.906920	
Survey Type:	Centerli	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
,	River		☐ Stream	n	V	Ditch	☐ Swale	☐ Canal		Other
Water Appearance: 🗹	No Wat	er	☐ Clear			Turbid	☐Sheen on Surface	n □Surfac	e Scum 🗆	Algal Mats □Other
Existing Condition <sup>a</sup> :	Highly	Function	al Stream	ı 🗆	Moderate	ly Functional S		Functionally	Impaired Stre	am
Feature Description:  (check one)	Natural		✓ Artifici	al, man-r	made 🗆	Manipulated				
Flow Regime: (check one)	Ephem	eral	☐ Interm	ittent		Perennial	☐ Connection Connection	ting		
Sinuosity within Survey Corridor: (check one)	Straigh	t	☐ Meand	dering						
Roadside ditch located be	etween	a planted	d corn fiel	d and a (	gravel road	d. Begins at fie	eld approach.			
Measurements										
Depth of Water:ft		N/A🗹	Unknov	wn 🗆 🛛 V	Vater Edg	e to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Widt	<b>h:</b> <u>2</u> ft.
OHWM Indicator: (check all that apply)	□ Cl	ear line o	on bank	□She	lving	□Wrested v	egetation	□Scouring		□Water staining
(онных ан ины арруу)		nt, matte		□Wra	ick line	□Litter and	debris	<b>☑</b> Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	drock	□ Во	ulder	☐ Cobl	ble 🗆 (	Gravel	□ Sand	<b>坚</b> Silt/ clay	y □ Organic
Observations										
Riparian Zone Present: (check one)	□ Ye	es	V	No						
Vegetation Layers: (check all that apply)	□ Tre	ees		Saplings	/Shrubs	✓ Herbs				
Dominant Bank Vegetati Juncus effusus, Phalaris	<b>on</b> (list) arundin	): acea, Ag	grostis gig	antea.						
Aquatic Habitats (ex: subn None.	nerged or	emerged ac	quatic vegeta	tion, overha	anging banks/	roots, leaf packs, l	arge submerged w	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obs None.	erved (	list):								
Disturbances (ex: livestoc Gravel roadside, agricultu			in waterbo	dy, waste	discharge p	oipes):				
Observation Notes: No water present at time	of surve	ey.								



sasa016e\_E (downstream)



sasa016e\_N (across)



sasa016e\_W (upstream)

Trate: Beay Batt	4 011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Pro	ect					2019-10-09			sasc036e	
State:		County/	Parish:			USGS Wate	rbody Name	<b>9</b> :		
WI		Ashland	I			UNT to Roc	k Creek			
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		BRG/JS				46.485812			-90.905964	
Survey Type: (check one)	☐ Center	ine	✓ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		<b>☑</b> Strean	n		Ditch	☐ Swale	☐ Cana		Other
Water Appearance: (check one)	☐ No Wa	ter	✓ Clear			Turbid	□Sheen o Surface	n □Surfac	e Scum	gal Mats □Other
Existing Condition a: (check one)	☐ Highly	Function	nal Stream		Moderately	y Functional S		Functionally	Impaired Strea	m
Feature Description: (check one)	☐ Natura		Artificia	al, man-r	made $\square$	Manipulated				
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec	cting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	it	✓ Mean	dering						
The feature is a small Phalaris arundinacea)								-	weedy plants f	rom the wetland (mostly
Measurements										
Depth of Water: 0.2	ft.	N/A□	Unknov	wn□ V	Vater Edge	e to Water Ed	lge: <u>2</u> ft	. N/A□	OHWM Width	: <u>2</u> ft.
OHWM Indicator: (check all that apply)	□С	ear line	on bank	□She	lving	□Wrested v	egetation	<b></b> Scouring		□Water staining
(спеск ан тасарру)		ent, matte ing vege		□Wra	ick line	□Litter and	debris	□Abrupt plan	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	□ Cobb	ole 🗆 (	Gravel	□ Sand	<b></b> Silt/ clay	□ Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗹 Ye	es		No						
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings	/Shrubs	✓ Herbs	i			
Dominant Bank Vege Phalaris arundinacea,	<b>tation</b> (list Setaria pu	'): imila, Lo	tus cornici	ulatus, T	araxacum	officinale, Po	a palustris, E	chinochloa crus	-galli.	
Aquatic Habitats (ex: Open water.	submerged or	emerged a	quatic vegeta	tion, overha	anging banks/r	roots, leaf packs, l	arge submerged	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms O None.	Observed	(list):								
<b>Disturbances</b> (ex: live Runoff from adjacent	stock acces crop field,	s, manure runoff fro	in waterboom nearby	dy, waste paved/g	discharge p ravel roads	ipes): s, erosion.				
Observation Notes: The feature is filtered inputs.	to some de	egree by	bank vege	etation a	nd the wet	land it origina	tes from, but	is erosional and	d likely receive	s pesticide/fertilizer



sasc036e\_E (downstream)



sasc036e\_S (across)



sasc036e\_W (upstream)

Valerbody Data S	iicci								
Description									
Project Name:					Date:			Waterbody	Survey ID:
Line 5 Relocation Project					2019-09-10			sasc001e	
State:	Cou	unty/Parish:			USGS Water	body Name	:		
WI	Asl	nland			UNT to Rock	Creek			
Company:	Cre	w Member Ini	itials:		Latitude:			Longitude:	
Enbridge		G/JSW			46.485517			-90.906771	
Survey Type:	Centerline	☐ Re-Ro	oute	□A	Access Road	□Facility	□Other		
,	River	<b>☑</b> Strear	n		Ditch	☐ Swale	☐ Canal		Other
Water Appearance:   (check one)	lo Water	☐ Clear		ØT	urbid	☐Sheen or Surface	n □Surfac	e Scum 🗆	Algal Mats □Other
	Highly Fun	ctional Stream	n	ately	/ Functional S		Functionally	Impaired Stre	eam
Feature Description:	Natural	✓ Artifici	al, man-made	<u> </u>	Manipulated				
Flow Regime: 🗹 E	phemera	I □ Interm	nittent		Perennial	☐ Connection Connection	ting		
Sinuosity within Survey Corridor:	Straight	<b>☑</b> Mean	dering						
Measurements									
Depth of Water: 0.3 ft.	N/A	□ Unkno	wn□ Water E	dge	to Water Ed	<b>ge:</b> <u>1.5</u> ft.	N/A□	OHWM Widt	t <b>h:</b> <u>2</u> ft.
OHWM Indicator: (check all that apply)	☐ Clear	line on bank	□Shelving		□Wrested ve	getation	<b>☑</b> Scouring		□Water staining
(спеск ан шасарруу)		matted, or vegetation	□Wrack line		□Litter and o	lebris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedro	ck □ Bo	oulder 🗆 C	obbl	le 🗆 G	ravel	□ Sand	<b>坚</b> Silt/ cla	y 🗆 Organic
Observations									
Riparian Zone Present:	✓ Yes		No						
Vegetation Layers: (check all that apply)	☐ Trees		Saplings/Shrub	S	☑ Herbs				
Dominant Bank Vegetation Phalaris arundinacea.	on (list):								
Aquatic Habitats (ex: subme None.			ation, overhanging ba	nks/ro	oots, leaf packs, la	rge submerged v	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obse None.	erved (list)	:							
<b>Disturbances</b> (ex: livestock Runoff from corn field and			ody, waste dischar	ge pi	pes):				
Observation Notes: The feature is associated	with wetla	nd wasc002e,	and runs throug	h a	culvert under	the nearby p	aved road.		



sasc001e\_E (downstream)



sasc001e\_S (across)



sasc001e\_W (upstream)

Tratorboay Bate	. 011000													
Description														
Project Name:						Dat	e:				Waterbod	y Surv	ey ID:	
Line 5 Relocation Proj	ect					201	9-10-09	)			sasc037e			
State:		County/	Parish:			US	GS Wate	erbody Nam	ne:		l .			
WI		Ashland	I			UN	T to Dee	er Creek						
Company:		Crew M	ember Ini	tials:		Lat	itude:				Longitude	):		
Enbridge		BRG/JS	SW			46.	482689				-90.90336	1		
Survey Type: (check one)	☐ Center	ine	<b>☑</b> Re-Ro	ute		□Acce	ss Road	□Facility		□Other	I.			
'	□ River		<b>☑</b> Strean	n		☐ Ditch	1	☐ Swale	)	□ Cana	I	□ Othe	er	
Water Appearance: (check one)	☐ No Wa	ter	✓ Clear			□Turbi	d	Sheen	on	□Surfac	e Scum	□Alga	l Mats	□Other
Existing Condition <sup>a</sup> :	☐ Highly	Function	nal Stream	ı v	Modera	tely Fur	nctional	Surface Stream	□ Fun	ctionally	Impaired S	tream		
Feature Description: (check one)			☐ Artificia				pulated							
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		□ Pere	nnial	☐ Conne Swale	ecting					
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Mean	dering										
Measurements					<b>14</b> /		N-1 F	-l 0	fı	NI/A 🖂	OLDA/BA VA/	-141-	0 4	
Depth of Water: 0.3	_ ft.	N/A□	Unknov	wn⊔	water Ec	ige to v	vater E	dge: 2	IL.	N/A□	OHWM W	iatn:	<u>2</u> ft.	•
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	□Sh	elving	□V	/rested v	vegetation	<b></b> ✓Sc	ouring	I		Water s	taining
(спеск ан тагарру)		nt, matte		□Wr	ack line	□L	itter and	debris	□Ab chan		it communi		Soil cha	ıracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Co	bble		Gravel	<b>⊻</b> Sa	ind	☐ Silt/ c	lay		Organic
Observations														
Riparian Zone Presen	it: 🗆 Ye	es		No										
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	<b>Ø</b> :	Sapling	s/Shrubs		✓ Herbs	S						
<b>Dominant Bank Vege</b> Fraxinus nigra, Acer ru	<b>tation</b> (list ubrum, Ca	): rex crinit	a, Thalictr	um das	ycarpum,	Carex	intumes	cens, Pinus	strobus	, Populu:	s tremuloide	es.		
Aquatic Habitats (ex: s None.	submerged or	emerged a	quatic vegeta	tion, over	hanging ban	ks/roots, I	eaf packs,	large submerge	d wood, riff	les, deep p	ools, etc.):			
Aquatic Organisms O None.	bserved	list):												
<b>Disturbances</b> (ex: lives Runoff from corn field,	stock acces polluted r	s, manure unoff.	in waterbo	dy, waste	e discharg	e pipes):								
Observation Notes: Banks are somewhat s	sparsely v	egetated												



sasc037e\_E (downstream)



sasc037e\_N (across)



sasc037e\_W (upstream)

Waterbody Data	Officer									
Description										
Project Name:						Date:			Waterbody S	Survey ID:
Line 5 Relocation Proje	ect					2019-10-09			sasc038e	
State:		County/P	Parish:			USGS Water	body Name	:		
WI		Ashland				UNT to Deer	Creek			
Company:		Crew Me	mber Init	ials:		Latitude:			Longitude:	
Enbridge		BRG/JSV	N			46.482432			-90.903280	
Survey Type: (check one)	□ Centerl	ine [	✓ Re-Rou	ıte		Access Road	□Facility	□Other		
Waterbody Type:	□ River	[	<b>☑</b> Stream			Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	☑ No Wa	ter [	□ Clear			Γurbid	☐Sheen on Surface			Algal Mats □Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Functiona	al Stream		erately	y Functional S	tream [	Functionally	Impaired Stre	am
Feature Description: (check one)	<b>☑</b> Natural	[	□ Artificia	l, man-made		Manipulated				
Flow Regime: (check one)	<b>☑</b> Ephem	eral [	☐ Intermi	ttent		Perennial	☐ Connection	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	t [	<b>☑</b> Meand	ering						
The feature is a small			gg		<b>,</b>	g				
Measurements										
Depth of Water:	_ ft.	N/A <b></b> ✓	Unknow	<sub>/n□</sub> Water	Edge	e to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Widt	<b>h:</b> <u>2</u> ft.
OHWM Indicator: (check all that apply)	□ CI	ear line o	n bank	□Shelving		□Wrested ve	egetation	<b>☑</b> Scouring		□Water staining
(спеск ан шагарру)		nt, matted ing vegeta		□Wrack lin	ie	□Litter and o	lebris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□В€	edrock	□ Воι	ılder 🗆	Cobb	ole 🗆 G	ravel	<b>☑</b> Sand	□ Silt/ clay	/ □ Organic
Observations										
Riparian Zone Presen (check one)	t: 🗆 Ye	es	<b>M</b> N	lo						
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	<b>v</b> s	Saplings/Shru	ıbs	✓ Herbs				
Dominant Bank Veget Fraxinus nigra, Populu	t <b>ation</b> (list s tremuloi	des, Abie	s balsame	ea, llex vertic	illata,	Athyrium filix-	femina.			
Aquatic Habitats (ex: s None.			uatic vegetati	on, overhanging	banks/r	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms O None.	bserved (	(list):								
<b>Disturbances</b> (ex: lives Runoff from crop field.	tock access	s, manure i	n waterbod	y, waste disch	arge pi	ipes):				
Observation Notes: The feature is erosional	al and mos	atly locate	d in a dist	urbed mesic	forest	t.				



sasc038e\_E (downstream)



sasc038e\_N (across)



sasc038e\_S (upstream)

Waterbody Dat	a Sileet										
Description											
Project Name:						Date:			Waterbody	y Survey ID:	
Line 5 Relocation Pro	ject					2019-10-09			sasc039i		
State:		County/F	Parish:			USGS Water	body Name	:			
WI		Ashland				UNT to Deer	Creek				
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude	:	
Enbridge		BRG/JS\	W			46.480553			-90.902888	8	
Survey Type: (check one)	☐ Centerl	ine	☑ Re-Ro	ute	$\Box A$	Access Road	□Facility	□Other			
Waterbody Type:	☐ River		✓ Stream	1		Ditch	☐ Swale	☐ Canal		☐ Other	
Water Appearance: (check one)	☐ No Wa	ter	✓ Clear			Turbid	☐Sheen on Surface	□Surfac	e Scum	□Algal Mats	□Other
Existing Condition a: (check one)	☑ Highly	Function	al Stream	□ Мо	derately	y Functional S		☐ Functionally	Impaired St	ream	
Feature Description:	✓ Natural		☐ Artificia	al, man-mad	de 🗆	Manipulated					
Flow Regime: (check one)	☐ Ephem	eral	✓ Interm	ittent		Perennial	☐ Connec	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	<b>☑</b> Meand	lering							
Measurements											
Depth of Water: 0.5	<u>ft</u> .	N/A□	Unknov	vn□  Wat	er Edge	to Water Ed	<b>ge:</b> 4 ft.	N/A□	OHWM Wi	<b>dth:</b> <u>12</u> ft	
OHWM Indicator: (check all that apply)	□ CI	ear line o	n bank	□Shelvin	ıg	□Wrested ve	egetation	<b>☑</b> Scouring		□Waters	taining
(oncon all that apply)		nt, matte		□Wrack	line	□Litter and o	lebris	□Abrupt plan	t communit	y □Soil cha change	aracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder [	□ Cobb	le □ G	iravel	<b></b> Sand	☐ Silt/ cl	lay 🗆 (	Organic
Observations											
Riparian Zone Prese (check one)	nt: 🗆 Ye	es	<b>1</b>	No							
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	Ø S	Saplings/Sh	rubs	✓ Herbs					
Dominant Bank Vege Acer rubrum, Thuja o Osmunda claytoniana	ccidentalis,	) <u>:</u> Tsuga ca	anadensis	s, Fraxinus i	nigra, Al	bies balsamea	a, Athyrium fi	lix-femina, Car	ex peduncu	lata, Rhamnus	s cathartica,
Aquatic Habitats (ex: Woody debris.		emerged aq	uatic vegetat	tion, overhangir	ng banks/ro	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	pols, etc.):		
Aquatic Organisms ( None.	Observed (	(list):									
<b>Disturbances</b> (ex: live Runoff from nearby co		s, manure	in waterboo	dy, waste disc	charge pi	ipes):					
Observation Notes: The feature is highly of	erosional, v	ith spars	e bank ve	getation.							



sasc039i\_E (downstream)



sasc039i\_S (across)



sasc039i\_W (upstream)

Trater Body Batt	<u>u 01100t</u>									
Description										
Project Name:						Date:			Waterbody Su	urvey ID:
Line 5 Relocation Pro	ject				ļ	2019-10-09			sasc040e	
State:		County/l	Parish:			USGS Wate	rbody Name:			
WI		Ashland	I		ļ	UNT to Deer	Creek			
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:	
Enbridge		BRG/JS	·W		ļ	46.480496			-90.902543	
Survey Type: (check one)	☐ Centerl	ine	✓ Re-Rou	ute	□A	ccess Road	□Facility	□Other		
Waterbody Type: (check one)	☐ River		<b>☑</b> Stream	<u> </u>		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	✓ No Wat	er	☐ Clear			urbid	☐Sheen on Surface	□Surfac	e Scum □Al	gal Mats □Other
Existing Condition a: (check one)	Highly	Function	al Stream		loderately	Functional S		☐ Functionally	Impaired Strea	m
Feature Description: (check one)						Manipulated				
Flow Regime: (check one)	<b>☑</b> Ephem		☐ Intermi		□ F	Perennial	☐ Connect Swale	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	<b>☑</b> Meand	dering						
Measurements										
Depth of Water:	ft.	N/A 🗹	Unknov	wn□ Wa	ater Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Width	: <u>1</u> ft.
OHWM Indicator: (check all that apply)	□ Cl	ear line o	on bank	□Shelvi	ing	□Wrested v	egetation	<b>☑</b> Scouring		□Water staining
(oncon all that apply)	<b>⊠</b> Be miss	ent, matte ing veget	d, or tation	□Wrack	k line	□Litter and o	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Cobbl	le 🗆 G	Gravel	☐ Sand	<b>I</b> Silt/ clay	□ Organic
Observations										
Riparian Zone Preser	nt: 🗆 Ye	es S	<b>L</b>	No						
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	<u> </u>	Saplings/S	Shrubs	✓ Herbs				
Dominant Bank Vege Acer rubrum, Fraxinus	s nigra, Abi	ies balsaı		•			•	• •		
Aquatic Habitats (ex: None.	submerged or	emerged ac	uatic vegetat	tion, overhang	ging banks/ro	oots, leaf packs, la	irge submerged w	rood, riffles, deep po	ools, etc.):	
Aquatic Organisms ( None.	Observed (	Tist):								
<b>Disturbances</b> (ex: live None.	stock access	s, manure	in waterboo	dy, waste dis	scharge pip	pes):				
Observation Notes: Banks are steep and	have herba	ceous ve	egetation t	hroughout	t.					



sasc040e\_E (across)



sasc040e\_N (downstream)



sasc040e\_S (upstream)

Waterbody Data	Dilect									
Description										
Project Name:						Date:			Waterbody	Survey ID:
Line 5 Relocation Projec	t					2019-09-10			sasc002e	
State:		County/	Parish:			USGS Wate	rbody Name	:		
WI		Ashland				None				
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:	
Enbridge		BRG/JS	W			46.479191			-90.906302	
Survey Type:	Centerl	ine	☐ Re-Ro	ute	□A	Access Road	□Facility	□Other		
Waterbody Type: (check one)	River		☐ Stream	า	<b>V</b> [	Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	No Wat	er	☐ Clear		□Т	urbid	☐Sheen on Surface	n □Surfac	e Scum 🗆	Algal Mats □Other
Existing Condition <sup>a</sup> :	Highly	Function	al Stream	□М	loderately	/ Functional S		Functionally	Impaired Stre	eam
Feature Description:	Natural		✓ Artificia	al, man-ma	ade 🗆 l	Manipulated				
Flow Regime: (check one)	Ephem	eral	☐ Interm	ittent		Perennial	☐ Connection Connection	ting		
Sinuosity within Survey Corridor: (check one)	Straigh	t	☐ Meano	dering						
The stream is located in	a roadsi	de ditch	along a gr	avel road.						
Measurements										
	ft.	N/A 🗹	Unknov	wn□ <b>W</b> a	ater Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Wid	<b>th:</b> <u>2</u> ft.
OHWM Indicator:	□ CI	ear line o	on bank	□Shelvi	ing	□Wrested v	egetation	<b></b> Scouring		□Water staining
(check all that apply)		nt, matte ng veget		□Wrack	k line	Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☐ Cobbl	le 🗆 G	Gravel	□ Sand	<b>坚</b> Silt/ cla	y 🗆 Organic
Observations										
Riparian Zone Present:	□ Ye	es .	<b>U</b> 1	No						
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	V S	Saplings/S	Shrubs	✓ Herbs				
Dominant Bank Vegeta Fraxinus nigra, Ulmus ar	t <b>ion</b> (list	): a, Cornus	s sericea.							
Aquatic Habitats (ex: sub None.	merged or	emerged ac	quatic vegetal	tion, overhanç	ging banks/ro	oots, leaf packs, la	rge submerged v	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obs None.	served (	(list):								
<b>Disturbances</b> (ex: livesto Runoff from gravel road				dy, waste di	scharge pi	pes):				
Observation Notes: The stream is located be	etween a	gravel re	oad and a	corn field.	. A large a	amount of wo	ody rip-rap is	present.		



sasc002e\_E (downstream)



sasc002e\_N (across)



sasc002e\_W (upstream)

Waterbody Data &	Jiicci									
Description										
Project Name:						Date:			Waterbody S	urvey ID:
Line 5 Relocation Project	t					2019-09-10			sasc005e	
State:		County/	Parish:			USGS Wate	body Name	•		
WI		Ashland				UNT to Deer	Creek			
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		BRG/JS	W			46.478967			-90.90727	
Survey Type:	Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
	River		✓ Stream	า		Ditch	☐ Swale	☐ Canal		Other
Water Appearance:	No Wat	er	☐ Clear		□Т	Turbid	☐Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
	Highly	Function	al Stream	<b>☑</b> Mo	oderately	y Functional S		☐ Functionally	Impaired Stre	am
Feature Description:	Natural		Artificia	al, man-ma	de 🗆 l	Manipulated				
Flow Regime: (check one)	Ephem	eral	☐ Interm	ittent		Perennial	☐ Connection Connection	ting		
Sinuosity within Survey Corridor: (check one)	Straigh	t	☐ Meano	dering						
The stream has steep an	id Hedvii	y vogeta	ned barne							
Measurements										
	t.	N/A 🗹	Unknov	wn□ Wat	er Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Widtl	n: <u>3</u> ft.
OHWM Indicator: (check all that apply)	□ CI	ear line o	on bank	□Shelvir	ng	□Wrested v	egetation	<b>☑</b> Scouring		□Water staining
(спеск ан шасарру)		nt, matte ng veget		□Wrack	line	□Litter and o	lebris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Cobb	le 🗆 G	iravel	<b>☑</b> Sand	□ Silt/ clay	□ Organic
Observations										
Riparian Zone Present:	□ Ye	es	<u> </u>	No						
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings/Sh	nrubs	☑ Herbs				
Dominant Bank Vegetat Clematis virginiana, Ribe	t <b>ion</b> (list es ameri	): canum, F	Prunus am	nericana, Ar	ctium m	iinus.				
Aquatic Habitats (ex: subi	merged or	emerged ac	quatic vegeta	tion, overhangi	ng banks/ro	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obs None.	served (	list):								
<b>Disturbances</b> (ex: livestor Runoff from paved road.	ck access	s, manure	in waterboo	dy, waste dis	charge pi	ipes):				
Observation Notes: The stream drains wetlar	nd wasc	004e and	d feeds int	o feature sa	asc004i.					



sasc005e\_E (across)



sasc005e\_N (downstream)



sasc005e\_S (upstream)

# **APPENDIX F**

Waterbody Data Sheets
Part 6 of 24

Trate: Beay Batt	4 011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Proj	ect					2019-09-1	0		sasc004i	
State:		County	/Parish:			USGS Wa	terbody Nam	e:	L	
WI		Ashland	d			UNT to De	er Creek			
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		BRG/JS	SW			46.478913	1		-90.906884	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Roa	d □Facility	□Other	•	
Waterbody Type: (check one)	☐ River		☑ Strear	n		Ditch	☐ Swale	☐ Cana	I 🗆 C	Other
Water Appearance: (check one)	☐ No Wa	ter	☐ Clear		V	Turbid	☐Sheen of Surface	on □Surfac	e Scum □Al	gal Mats □Other
Existing Condition a: (check one)	☐ Highly	Function	nal Stream		Moderate	ly Functiona		☐ Functionally	Impaired Strea	m
Feature Description: (check one)	✓ Natural		☐ Artifici			Manipulated	I			
Flow Regime: (check one)	☐ Ephem	eral	✓ Interm	ittent		Perennial	☐ Conne Swale	ecting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Mean	dering						
Measurements										
Depth of Water: 0.4	ft.	N/A□	Unkno	wn 🗆 🛚 🕨	Nater Edg	je to Water E	i <b>dge</b> : <u>6</u> f	ft. N/A□	OHWM Width	: <u>10</u> ft.
OHWM Indicator: (check all that apply)	□ Cl	ear line	on bank	□She	elving	☑Wrested	vegetation	<b></b> Scouring		□Water staining
(orosa all that apply)		nt, matte		□Wra	ack line	□Litter an	d debris	□Abrupt plar change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☐ Cob	ble 🗆	Gravel	<b>☑</b> Sand	□ Silt/ clay	□ Organic
Observations										
Riparian Zone Preser	nt: 🗆 Ye	es		No						
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings	s/Shrubs	<b>☑</b> Herb	os			
Dominant Bank Vege Tilia americana, Acer	tation (list saccharum	): n, Parthe	enocissus i	inserta, I	Maianthen	num canader	ise.			
Aquatic Habitats (ex: Overhanging roots.	submerged or	emerged a	iquatic vegeta	ition, overh	anging banks	/roots, leaf packs	, large submerged	I wood, riffles, deep p	ools, etc.):	
Aquatic Organisms O None.	Observed (	(list):								
<b>Disturbances</b> (ex: live Runoff from roads and	stock acces d surround	s, manure ng crop	in waterbo fields.	dy, waste	discharge	pipes):				
Observation Notes: The feature is located	in a small	wooded	area adja	cent to r	oads and	crop fields.				



sasc004i\_E (downstream)



sasc004i\_S (across)



sasc004i\_W (upstream)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbod	ly Survey ID:	
Line 5 Relocation Pro	ject					2019-09-10	)		sasc006e		
State:		County/l	Parish:			USGS Wat	erbody Nam	ne:			
WI		Ashland				UNT to De	er Creek				
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude	<b>9</b> :	
Enbridge		BRG/JS	W			46.479074			-90.90544	18	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Othei	•		
Waterbody Type: (check one)	☐ River		☐ Stream	n	V	Ditch	☐ Swale	☐ Cana	al	☐ Other	
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear			Turbid	□Sheen o	on □Surfa	ce Scum	□Algal Mats	□Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	al Stream		Moderate	ely Functional		<b>■</b> Functionally	Impaired S	Stream	
Feature Description: (check one)	☐ Natural		✓ Artificia	al, man-	made $\square$	Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Conne Swale	ecting			
Sinuosity within Survey Corridor: (check one)	<b>☑</b> Straigh	it	☐ Meano	dering							
Feature is an artificial	roadside d	itch.									
M											
Measurements Depth of Water:	ft.	N/A 🗹	Unknov	wn□ IV	Nater Edo	je to Water E	dae: 1	ft. N/A🗹	OHWM W	idth: 2	ft
			O mano			,					
OHWM Indicator: (check all that apply)	□ CI	ear line o	on bank	□She	elving	□Wrested	vegetation	✓ Scouring		□Wateı	r staining
(oncor all and apply)		nt, matte		□Wra	ack line	□Litter and	debris	□Abrupt pla change	nt communi	ty □Soil c change	haracteristic
Dominant Substrate: (check all that apply)		edrock	□ Во	ulder	□ Cob	ble 🗹	Gravel	□ Sand	<b>☑</b> Silt/ o		Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	<b>V</b> 1	No							
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	<b>V</b> :	Saplings	s/Shrubs	<b>☑</b> Herb	S				
Dominant Bank Vege Tilia americana, Corn	etation (list	): Acer sad	ccharum.								
Aquatic Habitats (ex: None.	submerged or	emerged ac	quatic vegeta	tion, overh	anging banks	/roots, leaf packs,	large submerged	d wood, riffles, deep	pools, etc.):		
Aquatic Organisms ( None.	Observed (	(list):									
<b>Disturbances</b> (ex: live Runoff from gravel roa		s, manure	in waterboo	dy, waste	discharge	pipes):					
Observation Notes: The ditch is located a	djacent to a	a gravel r	oad and h	nas relat	ively high	banks (~6 fee	et). No water	currently preser	nt.		



sasc006e\_E (upstream)



sasc006e\_S (across)



sasc006e\_W (downstream)

Tratersea, Batt	4 011000									
Description										
Project Name:						Date:			Waterbody Su	ırvey ID:
Line 5 Relocation Proj	ect					2019-10-08			sase022p	
State:		County/	Parish:			USGS Wate	rbody Name:			
WI		Ashland	i			Deer Creek				
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		ARK/OT	ГG			46.474854			-90.899830	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		✓ Stream	n		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	☐ No Wat	er	☐ Clear		V	Turbid	☐Sheen on	□Surfac	e Scum □Al	gal Mats □Other
Existing Condition <sup>a</sup> : (check one)	□ Highly	Function	nal Stream		Noderately	y Functional S	Surface stream	Functionally	Impaired Strea	m
Feature Description: (check one)	✓ Natural			al, man-m		Manipulated				
Flow Regime: (check one)	☐ Ephem	eral	☐ Interm	ittent	<b>V</b>	Perennial	☐ Connect Swale	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Meano	dering						
Measurements										
Depth of Water: 0.5	ft.	N/A□	Unknov	wn 🗆   Wa	ater Edge	to Water Ed	<b>ge:</b> <u>18</u> ft.	N/A□	OHWM Width	: <u>25</u> ft.
OHWM Indicator: (check all that apply)	<b>☑</b> CI	ear line	on bank	□Shelv	ving	□Wrested v	egetation	<b>☑</b> Scouring		☐Water staining
(check all that apply)		ent, matte ing vege		□Wrac	k line	□Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Cobbl	le 🗆 (	Gravel	<b>☑</b> Sand	<b></b> Silt/ clay	□ Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	<b>V</b> 1	No						
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings/S	Shrubs	✓ Herbs				
Dominant Bank Vege Glyceria striata, Phala	<b>tation</b> <i>(list</i> ris arundir	): acea, Ar	rctium min	us, Equis	etum scirp	ooides.				
Aquatic Habitats (ex: Overhanging, exposed	submerged or d roots, po	emerged acols and r	quatic vegeta iffles, largo	tion, overhan e and sma	nging banks/ro all woody o	oots, leaf packs, la debris.	irge submerged w	rood, riffles, deep po	ools, etc.):	
Aquatic Organisms C None.	)bserved (	list):								
<b>Disturbances</b> (ex: live Overland flow from ne						ipes):				
Observation Notes: Feature continues out	side surve	y corrido	r.							



sase022p\_NE (downstream)



sase022p\_SE (across)



sase022p\_SW (upstream)

Trato. Souy Batt	<u> </u>												
Description													
Project Name:	roject Name:									Waterbody	/ Survey ID	):	
Line 5 Relocation Proj	ect						2019-10-08			sase020e			
State:		County/	/Parish:				USGS Wate	rbody Name	<b>e</b> :				
WI		Ashland	t				UNT to Deer	Creek					
Company:		Crew M	ember Ini	itials:			Latitude:			Longitude	:		
Enbridge		ARK/01	ГG				46.474587			-90.899118	3		
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	oute	[	□A	ccess Road	□Facility	□Othe	r			
Waterbody Type:	□ River		<b>☑</b> Strear	n			Ditch	☐ Swale	☐ Can	al [	Other		
Water Appearance:	✓ No Wat	ter	☐ Clear			□Т	urbid	☐Sheen o	n 🗆 Surfa	ace Scum [	□Algal Ma	ts   Other	
(check one)  Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	nal Stream	n 🗆	Moderat	tely	Functional S	Surface stream	Functionally	y Impaired St	ream		
Feature Description: (check one)	✓ Natural		☐ Artifici	al, man	-made		Manipulated						
Flow Regime:							Perennial	☐ Conne	cting				
Sinuosity within Survey Corridor: (check one)	nuosity within □ Straight ☑ Meandering Irvey Corridor:												
Measurements													
Depth of Water:	ft.	N/A <b></b> ✓	Unkno	wn□	Water Ed	lge	to Water Ed	<b>ge</b> : fi	t. N/A🗹	OHWM Wi	dth: <u>2</u>	ft.	
OHWM Indicator: (check all that apply)	<b>☑</b> CI	ear line	on bank	□Sh	elving		□Wrested v	egetation	<b>☑</b> Scouring		□Wat	ter staining	
(oneon an that apply)		nt, matte		□Wr	rack line		□Litter and o	debris	<b>☑</b> Abrupt pla change	ant communit	y □Soil chang	characteristic le	
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	oulder	□ Co	bbl	e □G	Gravel	☐ Sand	<b></b> Silt/ c	lay	□ Organic	
Observations													
Riparian Zone Preser (check one)	nt: 🗆 Ye	es		No									
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	V	Sapling	s/Shrubs		✓ Herbs						
Dominant Bank Vege Equisetum scirpoides	tation (list Lonicera	): canaden	sis, Abies	balsam	nea.								
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegeta	ation, overl	hanging banl	ks/ro	ots, leaf packs, la	irge submerged	wood, riffles, deep	pools, etc.):			
Aquatic Organisms ( None	Observed (	(list):											
<b>Disturbances</b> (ex: live None.	stock acces	s, manure	in waterbo	ody, wast	e discharge	e pip	pes):						
Observation Notes: Feature continues out	of survey	corridor.											



sase020e\_NE (downstream)



sase020e\_SE (across)



sase020e\_SW (upstream)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbod	y Survey ID:	
Line 5 Relocation Pro	ect					2019-10-08			sase021e		
State:		County/I	Parish:			USGS Wate	rbody Name	:			
WI		Ashland				UNT to Dee	Creek				
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude	):	
Enbridge		ARK/OT	·G			46.474368			-90.89949	1	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	☐ River		<b>☑</b> Stream	n		Ditch	☐ Swale	☐ Canal		□ Other	
Water Appearance: (check one)	☑ No Wa	ter	☐ Clear		□Т	Turbid	☐Sheen on Surface	□Surfac	e Scum	□Algal Mats	□Other
Existing Condition a: (check one)	☐ Highly	Function	al Stream		Moderately	/ Functional S		Functionally	Impaired S	tream	
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-n	nade 🗆 I	Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec	ting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Meano	dering							
Dry run in the bottom	of a small,	forested	valley. Iri	ibutary to	sase020e	).					
Magauramanta											
Measurements Depth of Water:	ft.	N/A 🗹	Unknov	wn□ <b>W</b>	/ater Edge	to Water Ed	qe: ft.	N/A 🗹	OHWM W	idth: 1	ft.
					J						
OHWM Indicator: (check all that apply)	<b>☑</b> CI	ear line c	on bank	□Shel	ving	□Wrested v	egetation	✓ Scouring		□Water	staining
, , , , , , , , , , , , , , , , , , , ,		nt, matte ing veget		□Wra	ck line	□Litter and debris    ✓Abrupt change			t communi	ty □Soil cl change	naracteristic
Dominant Substrate: (check all that apply)		edrock	□ Во	ulder	□ Cobb	le 🗆 C	Gravel	□ Sand	<b>I</b> Silt/ c		Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	<u> </u>	No							
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	V S	Saplings/	'Shrubs	✓ Herbs					
Dominant Bank Vege Equisetum scirpoides	<b>tation</b> (list	r) <b>:</b> nigra, Abi	ies balsan	nea, Osn	nunda clay	toniana.					
Aquatic Habitats (ex: None.	submerged or	emerged aq	quatic vegetal	tion, overha	nging banks/ro	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	ools, etc.):		
Aquatic Organisms ( None.	Observed (	(list):									
<b>Disturbances</b> (ex: live None.	stock acces	s, manure	in waterboo	dy, waste o	discharge pi	pes):					
Observation Notes: None.											



sase021e\_NE (downstream)



sase021e\_NW (across)



sase021e\_SW (upstream)

Trater Boay Bat	4 011000													
Description														
Project Name:					Date:					Waterbody S	urvey	ID:		
Line 5 Relocation Pro	ject					2019-09	9-11				sasc007p			
State:		County/	Parish:			USGS V	Naterl	oody Name	<b>e</b> :	<u> </u>				
WI		Ashland	I			Deer Cr	reek							
Company:		Crew Mo	ember Ini	tials:		Latitude	<b>e</b> :				Longitude:			
Enbridge		BRG/JS	SW			46.4728	337				-90.90388			
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access R	oad	□Facility		Other				
Waterbody Type: (check one)	☑ River		☐ Strean	n		Ditch		☐ Swale		Canal		Other		
Water Appearance: (check one)	□ No Wa	ter	✓ Clear			Turbid		□Sheen oi Surface	n 🗆	Surfac	e Scum 🗆 🗸	Algal M	lats □C	ther
Existing Condition a: (check one)	☑ Highly	Function	nal Stream		Moderate	ely Functio			☐ Functi	onally l	mpaired Stre	am		
Feature Description: (check one)	✓ Natural □ Ephem		☐ Artificia			∃ Manipula								
Flow Regime: (check one)	U	<b>1</b> Perennia		☐ Connection Connection	cting									
Sinuosity within ☐ Straight ☑ Meandering Survey Corridor: (check one)  Description Notes:														
The stream banks are along its banks, which curves sharply. Bank	have falle	n due to	the heavy	erosior	n. Banks a	re sandy a	and sp	arsely vege	etated, an	ıd bank	width increa	-		-
Measurements														
Depth of Water: 1	ft.	N/A□	Unknov	wn□	Water Edg	ge to Wate	er Edg	<b>e:</b> <u>10</u> ft	i. N	N/A□	OHWM Widt	h: <u>2</u>	<u>25</u> ft.	
OHWM Indicator: (check all that apply)	□ Cl	ear line	on bank	□Sh	elving	☑Wrest	ted ve	getation	✓Scou	ıring		□W	ater stainin	ng
(oncore an unat appry)		ent, matte		□Wr	ack line	☑Litter	and de	ebris	□Abru change		t community	□So char	oil characte	ristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Cob	ble	□ Gr	ravel	<b>☑</b> Sand	d	☐ Silt/ clay	1	□ Organ	ic
Observations														
Riparian Zone Preser	nt: 🗆 Ye	es		No										
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Sapling	s/Shrubs	<b>☑</b> H	lerbs							
Dominant Bank Vege Betula alleghaniensis	<b>etation</b> (list Tsuga cai	): nadensis	. Sparse h	erbace	ous vegeta	ation includ	des Dr	yopteris int	termedia,	Matte	uccia struthio	oteris		
Aquatic Habitats (ex: Woody debris.	submerged or	emerged a	quatic vegeta	tion, overh	nanging banks	s/roots, leaf pa	acks, lar	ge submerged	wood, riffles	, deep po	ools, etc.):			
Aquatic Organisms ( None.	Observed (	Tist):												
<b>Disturbances</b> (ex: live Runoff from roads and			in waterbo	dy, waste	e discharge	pipes):								
Observation Notes: The stream is located	in a mesic	hardwoo	od forest, v	with ste	ep hills on	either side	e. The	feature is f	fed by erd	osional	gully sasc00	Зе.		



sasc007p\_E (downstream)



sasc007p\_N (across)



sasc007p\_W (upstream)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	y Survey ID:	
Line 5 Relocation Pro	ject					2019-09-11			sasc008e		
State:		County/	Parish:			USGS Wate	rbody Name	:			
WI		Ashland				UNT to Dee	r Creek				
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude	:	
Enbridge		SAM/JS	W			46.472890			-90.903612	2	
Survey Type: (check one)	✓ Center	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	☐ River		☐ Strean	n		Ditch	☐ Swale	☐ Canal		<b>✓</b> Other	
Water Appearance: (check one)	✓ No Wa	ter	☐ Clear			Γurbid	□Sheen or Surface	n □Surfac	e Scum [	□Algal Mats	□Other
Existing Condition a: (check one)	☐ Highly	Function	al Stream		Moderately	y Functional S		Functionally	Impaired St	tream	
Feature Description: (check one)	✓ Natura		☐ Artificia	al, man-n	nade 🗆	Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec Swale	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	nt	✓ Mean	dering							
Measurements								A1/A (27)	010404140	- 141 - 0 - 1	
Depth of Water:	ft.	N/A 🗹	Unknov	wn□ W	vater Edge	e to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Wi	<b>dth:</b> 2 f	τ.
OHWM Indicator:	□С	ear line	on bank	□Shel	lving	□Wrested v	egetation	<b>☑</b> Scouring		□Water	staining
(check all that apply)		ent, matte ing veget		□Wra	ck line	□Litter and	debris	□Abrupt plan change	t communit	y □Soil change	aracteristic
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	☐ Cobb	le 🗆 (	Gravel	<b>☑</b> Sand	<b>☑</b> Silt/ cl	lay 🗆	Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es		No							
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings/	/Shrubs	☐ Herbs					
<b>Dominant Bank Vege</b> Tsuga canadensis, Th	etation (list nuja occide	t): ntalis, Ad	cer saccha	arum. Spa	arse to no	cover of herb	aceous speci	es.			
Aquatic Habitats (ex: None.	submerged or	emerged ad	quatic vegeta	tion, overha	inging banks/r	oots, leaf packs, la	arge submerged v	vood, riffles, deep po	ools, etc.):		
Aquatic Organisms ( None.	Observed	(list):									
<b>Disturbances</b> (ex: live Continued erosion.	stock acces	s, manure	in waterboo	dy, waste	discharge p	ipes):					
Observation Notes: Feature is an erosion	al gully on	a slope o	f 45 degre	ees. Feed	ds into sas	c007p. Featu	re is a result o	of erosional fac	tors.		



sasc008e\_E (across)



sasc008e\_N (downstream)



sasc008e\_S (upstream)

Trator Dody Date	<u> </u>													
Description														
Project Name:						C	Date:			ľ	Waterbody	Survey IE	D:	
Line 5 Relocation Proj	ect					2	2019-10-09				sasa067e			
State:		County/	Parish:			ι	JSGS Water	body Name	:					
WI		Ashland	i			ι	UNT to Deer	Creek						
Company:		Crew M	ember Ini	tials:		L	_atitude:				Longitude:			
Enbridge		NTT/OT	-G			4	46.471096				-90.898256			
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	ute		□Ac	cess Road	□Facility		Other				
Waterbody Type:	□ River		✓ Strean	n		□ Di	itch	☐ Swale		Canal		Other		
Water Appearance:	✓ No Wat	ter	☐ Clear			∃Tu	ırbid	☐Sheen on	n 🗆 S	Surface	e Scum 🗆	Algal Ma	ts □Ot	ther
(check one)  Existing Condition a: (check one)	□ Highly	Function	nal Stream		Moderate	ely l	Functional S	Surface tream	☐ Functio	nally I	mpaired Str	eam		
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-	made [	□ M	anipulated							
Flow Regime: (check one)	<b>E</b> phem	eral	☐ Interm	ittent		□ P	erennial	☐ Connec	ting					
Sinuosity within Survey Corridor: (check one)	☐ Straigh	t	<b>☑</b> Meand	dering				<u> </u>						
The waterbody is a na of pooled water.	rrow ephe	meral ch	annel that	t meand	ers throug	gh a	mesic hard	vood forest.	Debris is	preser	nt along the	stream w	vith small p	oockets
Measurements														
Depth of Water:	ft.	N/A 🗹	Unknov	wn□	Water Ed	ge t	o Water Ed	<b>je:</b> ft.	N/	/AE	OHWM Wid	th: 2	ft.	
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	□She	elving		□Wrested ve	getation	□Scour	ing		□Wat	ter stainino	g
		nt, matte		□Wra	ack line		Litter and o	ebris		t plant	community	□Soil chang	character e	ristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Col	bble	. <b>☑</b> G	ravel	<b>☑</b> Sand		☐ Silt/ cla	у	□ Organi	С
Observations														
Riparian Zone Preser (check one)	nt: 🗆 Ye	es		No										
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings	s/Shrubs		☑ Herbs							
Dominant Bank Vege Quercus rubra, Populi spp.	tation (list us tremuloi	) <del>:</del> des, Car	rex crinita,	Carex p	peduncula	ata,	Matteuccia s	truthiopteris	, Oryzops	is asp	erifolia, Con	nus canad	densis, Eq	quisetum
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegeta	tion, overh	anging bank	s/roo	ts, leaf packs, la	ge submerged w	vood, riffles,	deep po	ols, etc.):			
Aquatic Organisms ( None.	Observed (	(list):												
<b>Disturbances</b> (ex: live None.	stock access	s, manure	in waterbo	dy, waste	e discharge	pipe	es):							
Observation Notes: Feature continues out	side surve	y corrido	r.											



sasa067e\_E (downstream)



sasa067e\_S (across)



sasa067e\_W (upstream)

Trate. Sour Bat	4 011000													
Description														
Project Name:	roject Name:									1	Waterbody	/ Surv	/ey ID:	
Line 5 Relocation Pro	ject						2019-10-09				sasa066i			
State:		County/	Parish:			ļ	JSGS Water	body Name	e:	<u>I</u>				
WI		Ashland	I				UNT to White	e River						
Company:		Crew M	ember Ini	tials:		L	_atitude:			l	Longitude:			
Enbridge		NTT/OT	G				46.464909				-90.898602	2		
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute	[	□Ac	cess Road	□Facility		Other				
Waterbody Type: (check one)	□ River		<b>☑</b> Strean	n	[	□ D	itch	☐ Swale		Canal		Oth	ner	
Water Appearance: (check one)	☐ No Wat	ter	☐ Clear		[	□Tι	ırbid	Sheen of	n 🗆 :	Surface	e Scum 🗆	∃Alga	al Mats	□Other
Existing Condition <sup>a</sup> : (check one)	□ Highly	Function	nal Stream		Moderat	tely	Functional S	<u>Surface</u> tream	<b>□</b> Function	onally I	mpaired St	ream		
Feature Description: (check one)	✓ Natural		☐ Artificia		-made [	□ M	lanipulated							
Flow Regime: (check one)	ck one)							☐ Connection Connection	cting					
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	✓ Meand				<u> </u>							
hardwood forest outsi	de the surv	ey come	JOI.											
Measurements														
Depth of Water: 1	ft.	N/A□	Unknov	wn□	Water Ed	ige 1	to Water Ed	<b>ge:</b> <u>6</u> ft	t. N	I/A□	OHWM Wid	dth:	<u>8</u> ft.	
OHWM Indicator:	□ CI	ear line	on bank	□Sh	elving	[	□Wrested ve	getation	□Scou	ring			□Water st	aining
(check all that apply)		nt, matte		□Wr	ack line	0	<b>⊻</b> Litter and o	lebris	<b>☑</b> Abrup change		community		∃Soil chai hange	racteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	<b>☑</b> Co	bble	: □ G	ravel	□ Sand	l	<b>☑</b> Silt/ cl	ay	0	rganic
Observations														
Riparian Zone Prese	nt: 🗆 Ye	es	<b>Ø</b> 1	No										
Vegetation Layers: (check all that apply)	□ Tr	ees		Sapling	s/Shrubs		✓ Herbs							
Dominant Bank Vege Phalaris arundinacea	<b>etation</b> (list Bromus in	): ermis, S	olidago ca	nadens	sis, Rubus	s ida	eus, Cirsium	arvense, P	teridium a	aquilinu	ım.			
Aquatic Habitats (ex: Water is currently flow	submerged or ving throug	emerged a h the stre	quatic vegeta eam likely	tion, overh due to	hanging bank recent rai	ks/roc infall	ots, leaf packs, la l events.	rge submerged	wood, riffles,	deep po	ols, etc.):			
Aquatic Organisms ( None.	Observed (	(list):												
<b>Disturbances</b> (ex: live Area has been influer	stock access ced by fari	s, manure ning pra	in waterboo ctices and	dy, waste cattle c	e discharge disturband	e pip ces.	es):							
Observation Notes: No wetland fringe pre	sent; featu	e is surr	ounded by	/ upland	d vegetati	ion.								



sasa066i\_E (downstream)



sasa066i\_S (across)



sasa066i\_W (upstream)

Waterbody Date	a Silect										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Pro	ject					2019-10-09			sasa068e		
State:		County/I	Parish:			USGS Water	body Name	<u> </u>			
WI		Ashland				UNT to Deer	Creek				
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude:		
Enbridge		NTT/OT	G			46.462920			-90.899003	3	
Survey Type: (check one)	✓ Center	ine	☐ Re-Rou	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	☐ River		☐ Stream	1		Ditch	✓ Swale	☐ Canal		Other	
Water Appearance: (check one)	✓ No Wa	ter	☐ Clear		□Т	Turbid	☐Sheen on Surface	□Surfac	e Scum 🗆	∃Algal Mats	□Other
Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	al Stream	□ Mod	derately	/ Functional S		Functionally	Impaired Str	ream	
Feature Description: (check one)	☐ Natura		✓ Artificia	al, man-mad	е 🗆 І	Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Intermi	ittent		Perennial	☐ Connec Swale	ting			
Sinuosity within Survey Corridor: (check one)	☐ Straigh	it	<b>☑</b> Meand	lering							
The waterbody is an ediffuse and enters a n											
Measurements											
Depth of Water:	ft.	N/A🗹	Unknov	vn□ Wate	er Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Wic	<b>dth:</b> <u>1</u> ft	
OHWM Indicator: (check all that apply)	□С	ear line c	on bank	□Shelvino	9	□Wrested ve	getation	□Scouring		□Water s	taining
(oncon all that apply)		ent, matte ing veget		□Wrack li	ne	□Litter and debris □Abrupt change			t community	y □Soil cha change	racteristic
Dominant Substrate: (check all that apply)	□В€	edrock	□ Воι	ulder [	Cobb	le □ G	ravel	☐ Sand	<b>I</b> Silt/ cla	ay 🗆 C	Organic
Observations											
Riparian Zone Preser (check one)	nt: 🗆 Ye	es		No							
Vegetation Layers: (check all that apply)	☐ Tr	ees		Saplings/Shr	ubs	✓ Herbs					
<b>Dominant Bank Vege</b> Echinochloa crus-gall	etation <i>(list</i> i, Trifolium	r): repens, F	Persicaria	hydropiper.							
Aquatic Habitats (ex: None.	submerged or	emerged aq	quatic vegetat	ion, overhangin	g banks/ro	oots, leaf packs, la	rge submerged v	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms ( None.	Observed	(list):									
<b>Disturbances</b> (ex: live None.	stock acces	s, manure	in waterboo	dy, waste disc	harge pi	ipes):					
Observation Notes: Artificial drainage feat	ure.										



sasa068e\_NE (downstream)



sasa068e\_SE (across)



sasa068e\_SW (upstream)

Waterbody Data Sir	CCI							
Description								
Project Name:				Date:			Waterbody S	urvey ID:
Line 5 Relocation Project				2019-10-16			sasd015i	
State:	County	/Parish:		USGS Wate	rbody Name	:		
WI	Ashland	d		UNT to Mare	engo River			
Company:	Crew M	lember Initial	s:	Latitude:			Longitude:	
Enbridge	MAL/A	GG		46.457053			-90.898646	
Survey Type:  (check one)	enterline	☐ Re-Route		Access Road	□Facility	□Other		
Waterbody Type: ☐ Rin	ver	<b>☑</b> Stream		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: ☐ No (check one)	Water	☐ Clear	V	Turbid	☐Sheen on Surface	□Surfac	e Scum □ <i>A</i>	lgal Mats □Other
Existing Condition a: Hi	ighly Function	nal Stream	☐ Moderate	ely Functional S		<b>⊈</b> Functionally	Impaired Stre	am
Feature Description: V Na	atural	☐ Artificial, ı	man-made 🗆	Manipulated				
Flow Regime:	hemeral	✓ Intermitte	ent 🗆	Perennial	☐ Connect	ting		
Sinuosity within St Survey Corridor: (check one)	raight	✓ Meanderi	ing					
_		·		·				
Measurements								
Depth of Water: 1 ft.	N/A□	Unknown	□ Water Edç	ge to Water Ed	<b>ge:</b> 6 ft.	N/A□	OHWM Widtl	n: <u>8</u> ft.
OHWM Indicator: (check all that apply)	☐ Clear line	on bank	□Shelving	□Wrested v	egetation	□Scouring		□Water staining
	□Bent, matto missing vege		□Wrack line	<b>☑</b> Litter and	debris	□Abrupt plan change	t community	□Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedrock	☐ Bould	er 🗆 Cob	oble 🗆 C	Gravel	□ Sand	<b>坚</b> Silt/ clay	□ Organic
Observations								
	□ Yes	<b>☑</b> No						
Vegetation Layers: (check all that apply)	✓ Trees	<b>☑</b> Sap	olings/Shrubs	☑ Herbs				
Dominant Bank Vegetation Fraxinus nigra, Ulmus amer	<b>n</b> <i>(list)</i> : ricana, Popul	us tremuloide	s, Betula papyı	rifera, Acer sac	charum.			
Aquatic Habitats (ex: submeror Turbid, slowly flowing water	ged or emerged a	aquatic vegetation,	, overhanging banks	s/roots, leaf packs, la	irge submerged w	vood, riffles, deep po	ools, etc.):	
Aquatic Organisms Observione.	ved (list):							
Disturbances (ex: livestock a Some invasive species cove	access, manure er within the b	e in waterbody, banks includir	waste discharge ng buckthorn. T	pipes): he water is qui	te turbid.			
Observation Notes: Large woody debris is scatt flowing due to recent rain ev	•	out indicating	high water ma	rk and occasion	nal overflow o	of the poorly de	fined banks. F	eature is likely currently



sasd015i\_E (downstream)



sasd015i\_S (across)



sasd015i\_W (upstream)

Waterbody Data Si	icci							
Description								
Project Name:				Date:			Waterbody Si	urvey ID:
Line 5 Relocation Project				2019-10-09			sasd012e	
State:	Cour	nty/Parish:		USGS Wate	rbody Name:			
WI	Ashl	and		UNT to Mar	engo River			
Company:	Crew	Member Init	ials:	Latitude:			Longitude:	
Enbridge	AGG	/MDL		46.454415			-90.898161	
Survey Type:	enterline	☐ Re-Ro	ute	□Access Road	□Facility	□Other		
Waterbody Type: ☐ F	River	<b>☑</b> Stream	1	□ Ditch	☐ Swale	☐ Canal		Other
Water Appearance: V N (check one)	lo Water	☐ Clear	[	□Turbid	□Sheen on Surface	□Surfac	e Scum □A	lgal Mats □Other
Existing Condition a:	Highly Func	tional Stream	☐ Moderat	tely Functional S		Functionally	Impaired Strea	ım
Feature Description:   (check one)	latural	☐ Artificia	al, man-made	✓ Manipulated				
Flow Regime:	phemeral	☐ Intermi	ttent	☐ Perennial	☐ Connect Swale	ting		
Sinuosity within Survey Corridor:	straight	☐ Meand	lering					
Description Notes: Feature is an ephemeral s	tream that t	lows through	forest. The featu	ure is very narrov	w and the cha	nnel is ill-defin	ed in parts.	
Measurements								
Depth of Water:ft.	N/A	Unknov	vn□ Water Ed	dge to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Width	: <u>1</u> ft.
OHWM Indicator:	☐ Clear li	ne on bank	 □Shelving	□Wrested v	egetation	□Scouring		□Water staining
(check all that apply)	✓Bent, m missing ver		□Wrack line	□Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedroc	к □ Вог	ulder □ Co	obble 🗆 🖰	Gravel	<b>☑</b> Sand	<b>坚</b> Silt/ clay	□ Organic
Observations								
Riparian Zone Present:	☐ Yes	<b>M</b> 1	No					
Vegetation Layers: (check all that apply)	✓ Trees	<b>v</b> 9	Saplings/Shrubs	<b>☑</b> Herbs				
Dominant Bank Vegetatio Corylus cornuta, Carex cri	<b>on</b> <i>(list)</i> : nita, Populu	ıs tremuloides	i.					
Aquatic Habitats (ex: subme None.		ed aquatic vegetat	ion, overhanging banl	ks/roots, leaf packs, la	arge submerged w	ood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obse None.	rved (list):							
<b>Disturbances</b> (ex: livestock None.	access, mar	nure in waterboo	ly, waste discharge	e pipes):				
Observation Notes: No water currently present								



sasd012e\_E (downstream)



sasd012e\_S (across)



sasd012e\_W (upstream)

**Open Waterbody Data Sheet** 

Open waterboo	iy Data	Snee	Ĺ									
Description												
Project Name:					Date:			Waterbody Su	ırvey ID:			
Line 5 Relocation Proj	ect				2019-10-16			oasd003				
State:		County	/Parish:		USGS Water	body Name:						
WI		Ashland	Ł		None							
Company:		Crew M	lember Initials:		Latitude:			Longitude:				
Enbridge		MAL/AC	3G		46.453976			-90.899075				
Survey Type: (check one)	☑ Centerle	ine	☐ Re-Route		Access Road	□Facility	□Other					
Waterbody Type: (check one)	Stock F		☐ Natural Pond		Fishing Pond	□ Lake	☐ Other					
Water Appearance: (check one)	□ No Wa	ter	✓ Clear	□Т	urbid	☐Sheen on Surface	□Surfac	e Scum □Al	gal Mats □Other			
Feature Quality: (check one)	□ High		✓ Moderate		Low							
Feature Description: (check one)	☐ Natural		Artificial, man-r	made 🗆 I	Manipulated							
Description Notes: The feature is within a meadow which was potentially cleared for farming. The open waterbody appears to be artificial.												
Measurements												
Depth of Water:	ft.	N/A□	Unknown <b></b> ✓									
OHWM Indicator: (check all that apply)	□ Cl	ear line	on bank □She	elving	□Wrested ve	egetation	□Scouring		□Water staining			
		nt, matte ing vege		ack line	□Litter and o	lebris	□Abrupt plan change	t community	☐Soil characteristic change			
Dominant Substrate: (check all that apply)	□ Ве	edrock	☐ Boulder	☐ Cobbl	le □ G	ravel	☐ Sand	<b></b> Silt/ clay	□ Organic			
Observations												
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	<b>☑</b> No									
Vegetation Layers: (check all that apply)	□ Tr	ees	☐ Saplings	/Shrubs	✓ Herbs							
Dominant Bank Vege Typha sp., Scripus cyp	<b>etation</b> <i>(list</i> perinus, Ph	): ialaris ar	rundinacea, Agrost	is gigantea	-							
Aquatic Habitats (ex: open water, aquatic v		emerged a	quatic vegetation, overha	anging banks/ro	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):				
Aquatic Organisms C None.	Observed (	(list):										
<b>Disturbances</b> (ex: live Invasive species.	stock acces	s, manure	in waterbody, waste	discharge pi	pes):							
Observation Notes: None.												



oasd003\_S



oasd003\_SE



oasd003\_SW

Waterbody Data 5	iicct							
Description								
Project Name:				Date:			Waterbody	Survey ID:
Line 5 Relocation Project				2019-1	0-16		sasd016i	
State:	Count	y/Parish:		USGS	Waterbody Nam	e:		
WI	Ashlar	nd		UNT to	Marengo River			
Company:	Crew I	Member Init	tials:	Latitud	e:		Longitude:	
Enbridge	MAL/A	\GG		46.451	176		-90.899017	
Survey Type:	Centerline	☐ Re-Ro	ute	□Access F	Road □Facility	□Other		
· · · · · · · · · · · · · · · · · · ·	River	<b>☑</b> Stream	n	☐ Ditch	☐ Swale	☐ Canal		Other
Water Appearance:  (check one)	No Water	☐ Clear		☑Turbid	□Sheen o Surface	on □Surfac	e Scum 🗆	Algal Mats □Other
'	Highly Function	onal Stream	☐ Mode	rately Function		Functionally	Impaired Stre	eam
Feature Description:	Natural	☐ Artificia	al, man-made	☐ Manipula	ated			
Flow Regime:	Ephemeral	✓ Interm		☐ Perennia	al □ Conne Swale	cting		
Sinuosity within Survey Corridor: (check one)	Straight	✓ Meano	Jering					
Measurements								
Depth of Water: 0.5 ft.	N/A□	Unknov	wn□ Water I	Edge to Wate	<b>er Edge</b> : <u>2</u> f	ft. N/A□	OHWM Widt	th: <u>3</u> ft.
OHWM Indicator: (check all that apply)	☐ Clear line	e on bank	□Shelving	□Wres	ted vegetation	Scouring		□Water staining
(спеск ал шасарруу)	<b>≝</b> Bent, mat missing veg		□Wrack line	e <b>⊠</b> Litter	and debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	☐ Bedrock	□ Во	ulder 🗆 (	Cobble	<b>☑</b> Gravel	□ Sand	☐ Silt/ cla	y 🗆 Organic
Observations								
Riparian Zone Present:	☐ Yes	<b>1</b>	No					
Vegetation Layers: (check all that apply)	✓ Trees		Saplings/Shrub	os 🗹 F	Herbs			
Dominant Bank Vegetation Solidago gigantea, Symph	<b>on</b> <i>(list)</i> : nyotrichum sp	p., Acer sac	charum, Ulmu	s americana.				
Aquatic Habitats (ex: subm Shallow flowing water, poo	erged or emerged	aquatic vegetat	tion, overhanging b	anks/roots, leaf p	 acks, large submerged	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms Obse None.	rved (list):							
<b>Disturbances</b> (ex: livestock Nearby residential land us	access, manu e. There is re	re in waterboo	dy, waste discha ed throughout	rge pipes): the banks.				
Observation Notes: Recent rain event has cau through wetland wasd028	•	water. There	s is currently la	rge scattered	I woody debris w	ithin the channel	and on the b	panks. Waterbody flows



sasd016i\_N (upstream)



sasd016i\_S (downstream)



sasd016i\_W (across)

Tratorboay Bata C	11000								
Description									
Project Name:				Date:			Waterbody St	ırvey ID:	
Line 5 Relocation Project				2019-10-09			sasd011p		
State:	С	ounty/Parish:		USGS Wate	rbody Name	<b>e</b> :			
WI	A	shland		UNT to Mar	engo River				
Company:	С	rew Member In	itials:	Latitude:			Longitude:		
Enbridge	A	GG/MDL		46.450664			-90.898056		
Survey Type:	Centerlin	e □ Re-Ro	oute [	□Access Road	□Facility	□Other			
Waterbody Type:	River	<b>☑</b> Strea	m [	☐ Ditch	☐ Swale	☐ Canal	□ C	Other	
Water Appearance:  (check one)	No Wate	r 🗆 Clear	[	☑Turbid	☐Sheen of Surface	n □Surfac	e Scum □Al	gal Mats □Other	
	Highly F	unctional Stream	n 🗹 Moderat	ely Functional S	Stream	☐ Functionally	Impaired Strea	m	
Feature Description:	Natural	☐ Artific		☐ Manipulated					
(check one)	Epheme	ral □ Intern	nittent [	<b>☑</b> Perennial	☐ Connec	cting			
Sinuosity within Survey Corridor: (check one)	Straight	<b></b> Mean	dering						
Measurements									
Depth of Water: 1 ft	. N	/A□ Unkno	wn□ Water Ed	lge to Water Ed	<b>lge:</b> <u>5</u> ft	N/A□	OHWM Width	: <u>9</u> ft.	
OHWM Indicator: (check all that apply)	✓ Clean	ar line on bank	□Shelving	□Wrested v	egetation	<b></b> Scouring		□Water staining	
(оноох ан тасарру)		t, matted, or g vegetation	□Wrack line	□Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change	
Dominant Substrate: (check all that apply)	□ Bed	rock 🗆 Bo	oulder   Col	bble 🗆 (	Gravel	<b></b> Sand	<b>I</b> Silt/ clay	☐ Organic	
Observations									
Riparian Zone Present: (check one)	☐ Yes	ď	No						
Vegetation Layers: (check all that apply)	<b>☑</b> Tree	es 🗹	Saplings/Shrubs	<b>☑</b> Herbs	i				
Dominant Bank Vegetati Pinus resinosa, Betula pa	<b>on</b> (list): pyrifera,	Carex peduncul	ata.						
Aquatic Habitats (ex: subm Standing water, riffles, de	erged or er bris.	nerged aquatic veget	ation, overhanging bank	ks/roots, leaf packs, l	arge submerged	wood, riffles, deep po	ools, etc.):		
Aquatic Organisms Observance.	erved (lis	st):							
<b>Disturbances</b> (ex: livestoc None.	k access,	manure in waterbo	ody, waste discharge	e pipes):					
Observation Notes: Feature is a perennial wa	terbody t	hat flows throug	h forest. In areas	the banks are h	ighly eroded	l.		_	



sasd011p\_E (downstream)



sasd011p\_N (across)



sasd011p\_W (upstream)

Waterbody Data Si	ileet										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Project						2019-09-11			sasc009e		
State:	C	County/F	Parish:			USGS Wate	body Name	•			
WI	A	Ashland				None					
Company:	C	Crew Me	mber Init	tials:		Latitude:			Longitude:		
Enbridge	E	BRG/JS\	W			46.450205			-90.901480		
Survey Type:	Centerlin	ne	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type: ☐ F	River		☐ Stream	า	V	Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: V N (check one)	lo Wate	er	□ Clear			Turbid	☐Sheen on Surface	□Surfac	e Scum 🛚	Algal Mats □Other	
Existing Condition a:	lighly F	unction	al Stream	□ I	Moderately	y Functional S		Functionally	Impaired Stre	eam	
Feature Description:   (check one)	latural		✓ Artificia	al, man-m	nade 🗆	Manipulated					
Flow Regime:	pheme	eral	☐ Interm	ittent		Perennial	☐ Connection Connection	ting			
Sinuosity within Survey Corridor:	Straight		□ Meand	dering							
The feature is a linear ditcl	h adjac	ent to a (	gravel roa	ad.							
Measurements											
Depth of Water:ft.	٨	I/A <b>☑</b>	Unknov	wn□ W	ater Edge	e to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Wid	<b>th:</b> <u>1</u> ft.	
OHWM Indicator: (check all that apply)	☐ Cle	ar line o	n bank	□Shel	ving	□Wrested v	egetation	<b>☑</b> Scouring		□Water staining	
(oneon all that apply)		it, matted		□Wrad	ck line	□Litter and	lebris	□Abrupt plan change	t community	□Soil characteristic change	
Dominant Substrate: (check all that apply)	□ Bed	drock	□ Во	ulder	☐ Cobb	ole 🗆 C	iravel	☐ Sand	<b>坚</b> Silt/ cla	y 🗆 Organic	
Observations											
Riparian Zone Present:	☐ Yes	3	<b>V</b> 1	No							
Vegetation Layers: (check all that apply)	☐ Tre	es		Saplings/	Shrubs	☑ Herbs					
Dominant Bank Vegetation Cornus sericea, Persicaria	<b>on</b> (list): sagitta	ita, Rosa	a blanda, l	Rubus id	aeus, Imp	atiens capens	is.				
Aquatic Habitats (ex: subme None.	erged or e	merged aq	uatic vegetat	tion, overhai	nging banks/r	oots, leaf packs, la	rge submerged v	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms Obse None.	rved (li	ist):									
<b>Disturbances</b> (ex: livestock Runoff from gravel road, co		manure i	in waterboo	dy, waste d	discharge p	ipes):					
Observation Notes: The feature connects with	wetland	d wasc0	10e where	e the bed	l and bank	s becomes mo	re defined in	the ditch. The t	feature runs	under a culvert.	



sasc009e\_E (upstream)



sasc009e\_N (across)



sasc009e\_W (downstream)

Tratorboay Date	4 011000														
Description															
Project Name:						I	Date:				Waterbod	y Sur	vey ID:		
Line 5 Relocation Proj	ect						2019-09-11				sasc012e				
State:		County	/Parish:			Ī	USGS Wate	rbody Nam	ne:						_
WI		Ashland	d				None								
Company:		Crew M	ember Ini	tials:		l	Latitude:				Longitude:				
Enbridge		BRG/JS	SW				46.450110				-90.90007	3			
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	ute		□Ad	ccess Road	□Facility		Other					
Waterbody Type: (check one)	□ River		☐ Stream	n		<b>Ø</b> D	itch	☐ Swale		Canal		□ Oth	her		
Water Appearance: (check one)	☑ No Wat	er	☐ Clear			ПΤι	urbid	Sheen	on 🗆	Surfac	e Scum	□Alga	al Mats	□Other	
Existing Condition <sup>a</sup> : (check one)	□ Highly	Function	nal Stream	n [	Modera	itely	Functional S	Surface stream	Functi	onally l	mpaired S	tream	1		
Feature Description: (check one)	☐ Natural		☑ Artificia	al, man	-made	□N	1anipulated								
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		□ P	erennial	☐ Conne Swale	ecting						
Sinuosity within Survey Corridor: (check one)	<b>☑</b> Straigh	t	☐ Meand	dering				Oward							
Measurements															
Depth of Water:	ft.	N/A <b></b> ✓	Unkno	wn□	Water Ed	dge 1	to Water Ed	ge:	ft. N	N/A <b>Ø</b>	OHWM Wi	idth:	1f	t.	
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	□Sh	elving	[	□Wrested v	egetation	□Scou	ıring		[	□Waters	staining	
, , , , , , , , , , , , , , , , , , , ,		nt, matte		□Wr	ack line	[	□Litter and o	debris	□Abru change		t communit		⊒Soil cha	aracteristic	
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Co	obble	e 🗆 G	Gravel	□ San	d	<b>☑</b> Silt/ c	lay		Organic	
Observations															
Riparian Zone Preser	nt: 🗆 Ye	es	V	No											
Vegetation Layers: (check all that apply)	□ Tr	ees		Sapling	s/Shrubs	;	✓ Herbs								
Dominant Bank Vege Cornus sericea, Centa	tation (list aurea jacea	) <del>:</del> ı, Solida	go gigante	ea, Rum	nex crispu	ıs, E	lymus repen	s, Poa palı	ustris.						
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegeta	ition, overl	hanging ban	nks/roc	ots, leaf packs, la	irge submerged	d wood, riffles	s, deep po	ools, etc.):				
Aquatic Organisms C None.	Observed (	list):													
<b>Disturbances</b> (ex: live Runoff from road, crop	stock access ofield.	s, manure	e in waterbo	dy, wast	e discharg	e pip	es):								
Observation Notes: The stream banks are	heavily ve	getated													



sasc012e\_E (upstream)



sasc012e\_S (across)



sasc012e\_W (downstream)



sasa018e\_W (upstream)

Tratorboay Bat	4 011000													
Description														
Project Name:						Da	ate:			Waterbo	dy Su	rvey ID:		
Line 5 Relocation Pro	ect					20	019-09-11			sasa017	e			
State:		County/	/Parish:			U	SGS Water	body Name	:					
WI		Ashland	d			U	NT to Mare	ngo River						
Company:		Crew M	ember Init	tials:		La	atitude:			Longitud	Longitude:			
Enbridge		NTT/DC	<b>GL</b>			46	6.432002			-90.8884	106			
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		□Acc	ess Road	□Facility	□Othe	er				
Waterbody Type: (check one)	□ River		☐ Stream	1	[	<b>D</b> ite	ch	☐ Swale	☐ Car	nal	□ O	ther		
Water Appearance:	✓ No Wat	ter	☐ Clear			∃Turl	bid	☐ Sheen or	n □Surf	ace Scum	□Al	gal Mats □Otl	her	
(check one)  Existing Condition a: (check one)	□ Highly	Function	nal Stream		Moderate	ely F	unctional S	Surface tream	Functional	ly Impaired	Strea	m		
Feature Description: (check one)	☐ Natural		✓ Artificia	al, man-	-made [	□ Ma	nipulated							
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		□ Pe	rennial	☐ Connec Swale	ting					
Sinuosity within Survey Corridor: (check one)	<b>☑</b> Straigh	t	□ Meand	dering										
Measurements Depth of Water:	ft.	N/A 🗹	Unknov	wn□	Water Ed	ge to	Water Edç	<b>ge:</b> ft.	N/A 🖣	OHWM V	<b>Vidth</b> :	: <u>4</u> ft.		
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	□She	elving		Wrested ve	getation	Scouring			□Water staining	<u> </u>	
(Chock all that apply)		nt, matte ng vege		□Wra	ack line		Litter and d	ebris	<b>☑</b> Abrupt pl change	ant commui	nity	□Soil characteri change	istic	
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Col	bble	□G	ravel	☐ Sand	☐ Silt/	′ clay	<b>௴</b> Organio	;	
Observations														
Riparian Zone Preser (check one)	nt: □ Ye	es	<b>1</b>	No										
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees	Ø;	Saplings	s/Shrubs		✓ Herbs							
<b>Dominant Bank Vege</b> Populus tremuloides,	<b>tation</b> <i>(list</i> Fraxinus p	): ennsylva	anica, Salix	c petiola	aris, Care	x intu	ımescens, <i>i</i>	Abies balsar	nea.					
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegetat	tion, overh	nanging bank	s/roots	s, leaf packs, la	ge submerged v	wood, riffles, deep	pools, etc.):				
<b>Aquatic Organisms (</b> None.	Observed (	(list):												
<b>Disturbances</b> (ex: live Large man-made berr	stock acces: n. Abundai	s, manure nt fallen	in waterboot trees and o	dy, waste debris.	e discharge	e pipes	s):							
Observation Notes: No water present at ti	me of surv	ey.												



sasa017e\_E (downstream)



sasa017e\_S (across)



sasa017e\_W (upstream)

Waterbody Data Siles	<i>,</i> t						
Description							
Project Name:			Date:		Waterbody Su	ırvey ID:	
Line 5 Relocation Project			2019-09-12		sasb009p		
State:	County/Parish:		USGS Waterbody N	Name:			
WI	Ashland		Marengo River				
Company:	Crew Member Initials:		Latitude:		Longitude:		
Enbridge	MAL/SAM		46.423728		-90.880648		
Survey Type:   (check one)	erline   Re-Route	□A	ccess Road □Fac	ility □ Other			
Waterbody Type:   River (check one)	□ Stream		Ditch ☐ Sw	/ale ☐ Cana	I □ 0	other	
Water Appearance: ☐ No W	/ater ☐ Clear	ØT	urbid □She Surfac		e Scum □Al	gal Mats □Other	
Existing Condition <sup>a</sup> :  High (check one)	ly Functional Stream	Moderately	Functional Stream	☐ Functionally	Impaired Strea	m	
Feature Description: V Natu	ral 🔲 Artificial, man-	-made 🗆 N	Manipulated				
Flow Regime:	emeral 🗆 Intermittent	<b>V</b> F	Perennial 🗆 Co Swale	nnecting			
Sinuosity within ☐ Strai Survey Corridor: (check one)	ght 🗹 Meandering						
The banks are susceptible to see feature is associated with a flo	•	flooding eve	nts leading to the de	position of coarse w	oody debris ont	to the floodplain. The	
Measurements							
Depth of Water: 3 ft.	N/A□ Unknown□	Water Edge	to Water Edge: 4	<u>5</u> ft. N/A□	OHWM Width	: <u>50</u> ft.	
OHWM Indicator:	Clear line on bank Sh	elving	✓ Wrested vegetation	n Scouring		<b>☑</b> Water staining	
<u> </u>	Bent, matted, or □Wr ssing vegetation	rack line	Litter and debris	□Abrupt plan change	t community	☐Soil characteristic change	
Dominant Substrate: (check all that apply)	Bedrock ☐ Boulder	☐ Cobbl	le □ Gravel	☐ Sand	<b>坚</b> Silt/ clay	□ Organic	
Observations							
	Yes □ No						
Vegetation Layers:	Trees Sapling	js/Shrubs	✓ Herbs				
Dominant Bank Vegetation (In The vegetation is forested to the Inigra, Thuja occidentalis, Ulmu	ne´edge of the banks. The b	J	on is dominated by A	bies balsamea, Tilia	americana, Ac	er saccharum, Fraxinus	
Aquatic Habitats (ex: submerged Riffles, overhanging vegetation	or emerged aquatic vegetation, overl		oots, leaf packs, large subm	erged wood, riffles, deep p	ools, etc.):		
Aquatic Organisms Observed None.	i (list):						
Disturbances (ex: livestock acc Feature highly susceptible to e	ess, manure in waterbody, wasterosion. Bank vegetation is in	e discharge pi nterspersed	pes): with upland plants w	ithin floodplain.			
Observation Notes: Abundant debris on banks and 2-3 feet at deepest point.	i within floodplain. Flood eve	ents are caus	sing mortality among	shrubs due to exten	ded periods of	inundation. Water depth	



sasb009p\_E (across)



sasb009p\_N (downstream)



sasb009p\_SE (upstream)

Tratersea, Batt	. 0.1.000										_
Description											
Project Name:						Date:			Waterbody Si	urvey ID:	
Line 5 Relocation Proj	ect					2019-09-12			sasb010e		
State:		County/	/Parish:			USGS Wate	rbody Name	:			
WI		Ashland	t			UNT to Mar	engo River				
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:		
Enbridge		MAL/SA	AM			46.422902			-90.880589		
Survey Type: (check one)	☑ Centerle	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type: (check one)	□ River		<b>☑</b> Strean	n		Ditch	☐ Swale	☐ Cana		Other	
Water Appearance: (check one)	☐ No Wa	ter	☐ Clear		V	Turbid	☐Sheen or Surface	n □Surfac	e Scum	gal Mats □Other	
Existing Condition a: (check one)	☐ Highly	Function	nal Stream	ľ	Moderately	y Functional S		☐ Functionally	Impaired Strea	m	
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-	made 🗆	Manipulated					
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm			Perennial	☐ Connec Swale	ting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	it	✓ Meanor	dering							
The feature is a small water present at the ti			y of the Ma	arengo f	River. The b	oanks of the s	tream are hig	jhly eroded. Th	ere are scatter	ed pools of standing	
Measurements											
Depth of Water: 0.5	_ft.	N/A□	Unknov	wn 🗆 🛝	Water Edge	e to Water Ed	<b>ge:</b> <u>2</u> ft.	N/A□	OHWM Width	: <u>4</u> ft.	
OHWM Indicator: (check all that apply)	□ Cl	ear line	on bank	□She	elving	<b>☑</b> Wrested v	egetation	<b>☑</b> Scouring		□Water staining	
(oroon all that apply)		ent, matte ing vege		□Wra	ack line	<b>☑</b> Litter and	debris	□Abrupt plan	t community	☐Soil characteristic change	
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Cobb	ole 🗆 (	Gravel	□ Sand	<b>坚</b> Silt/ clay	☐ Organic	
Observations											
Riparian Zone Preser	nt: 🗹 Ye	es		No							
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings	s/Shrubs	✓ Herbs					
Dominant Bank Vege The bank vegetation is Athyrium filix-femina.	<b>tation</b> (list s dominate	bd by Thu	uja occider	ntalis, Fr	axinus nigr	ra, Tilia ameri	cana, Tsuga	canadensis, as	well as Matteu	uccia struthiopteris and	t
Aquatic Habitats (ex: Pools, overhanging ro	submerged or ots.	emerged a	quatic vegeta	tion, overh	anging banks/r	oots, leaf packs, l	arge submerged v	wood, riffles, deep p	ools, etc.):		
Aquatic Organisms O Frogs and fish were o	<b>bserved</b> (bserved.	(list):									
<b>Disturbances</b> (ex: live There is evidence of c channel.	stock acces attle activi	s, manure ty in the	in waterboo past base	dy, waste d on the	discharge p tree cover.	ipes): . The banks a	re heavily erc	oded exposing t	ree roots alon	g the length of the	
Observation Notes: The feature is associa	ted with th	e Maren	go River fl	loodplair	า (wasb028	if).					



sasb010e\_N (downstream)



sasb010e\_S (across)



sasb010e\_SW (upstream)

Waterbody Date	Jileet										
Description											
Project Name:						Date:			Waterbod	y Survey ID:	
Line 5 Relocation Proj	ect					2019-09-12			sasb011e		
State:		County/	Parish:			USGS Water	body Name	<u> </u>			
WI		Ashland				UNT to Mare	ngo River				
Company:		Crew Me	ember Init	ials:		Latitude:			Longitude:		
Enbridge		MAL/SA	M			46.417658			-90.87698	1	
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type:	□ River		☐ Stream	1		Ditch	✓ Swale	☐ Canal	[	☐ Other	
Water Appearance:	☐ No Wa	ter	☐ Clear		ØT	Γurbid	□Sheen on Surface	Surfac	e Scum [	□Algal Mats	□Other
Existing Condition <sup>a</sup> :	□ Highly	Function	al Stream	□ Мо	derately	y Functional S		Functionally	Impaired St	tream	
Feature Description:	☐ Natural		✓ Artificia	al, man-mad	le 🗆 l	Manipulated					
Flow Regime:	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connect	ting			
Sinuosity within Survey Corridor: (check one)	□ Straigh	t	<b>☑</b> Meand	lering			Owaic				
Description Notes: The feature is a small but no flow.	erosional o	ditch with	nin a mowe	ed/disturbed	pastur	e. At the time	of survey the	ere are small po	ools of stand	ding water wi	ithin the ditch,
Measurements											
Depth of Water:	ft.	N/A <b>Ľ</b>	Unknov	vn□ Wate	er Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Wi	idth:1	ft.
OHWM Indicator: (check all that apply)	⊔ CI	ear line o	on bank	□Shelvin	g	□Wrested ve	egetation	□Scouring		⊔Water	staining
		nt, matte ing veget	,	□Wrack li	ine	□Litter and o	lebris	□Abrupt plan change	t communit	ty □Soil cł change	haracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder [	Cobb	le □ G	ravel	☐ Sand	<b>I</b> Silt/ c	clay □	Organic
Observations											
Riparian Zone Preser (check one)	nt: 🗆 Ye	es	<u> </u>	No							
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings/Sh	rubs	✓ Herbs					
Dominant Bank Vege Persicaria sp., Echino	tation (list	): -galli, Trit	folium prat	tense, and F	Plantago	o major.					
Aquatic Habitats (ex: None.	submerged or	emerged ac	quatic vegetat	tion, overhangin	g banks/ro	oots, leaf packs, la	rge submerged w	vood, riffles, deep po	ools, etc.):		
Aquatic Organisms ( None.	Observed (	(list):									
<b>Disturbances</b> (ex: live The feature is within a	stock acces mowed ar	s, manure nd grazed	in waterbood d pasture.	dy, waste disc Disturbance	harge pi es impa	ipes): acting the ditch	include eros	sion and runoff	from the pa	asture.	
Observation Notes: The ditch connects to	a linear de	pression	dominate	d by Persica	aria (wa	asb029e).					



sasb011e\_E (across)



sasb011e\_N (downstream)



sasb011e\_S (upstream)

Waterbody Data Silee								
Description								
Project Name:			Date:		Į,	Waterbody S	urvey ID:	
Line 5 Relocation Project			2019-09-13			sasc016i		
State:	County/Parish:		USGS Waterbo	dy Name:	<u> </u>			
WI	Ashland		UNT to Mareng	o River				
Company:	Crew Member Initials:		Latitude:			Longitude:		
Enbridge	BRG/JSW		46.418256			-90.873289		
Survey Type:   (check one)	rline   Re-Route	□A	ccess Road	Facility	□Other			
Waterbody Type: ☐ River	<b>☑</b> Stream		Ditch	Swale	☐ Canal		Other	
Water Appearance: ☐ No Wa	ater   Clear	VT		Sheen on urface	□Surface	e Scum □A	lgal Mats □Other	
, ,	Functional Stream	Moderately	Functional Stre		unctionally I	mpaired Strea	am	
Feature Description: V Natura (check one)	al □ Artificial, man-r	made 🗆 N	Manipulated					
Flow Regime:	neral 🗹 Intermittent	□ F		Connecting wale				
Sinuosity within ☐ Straig Survey Corridor: (check one)	ht 🗹 Meandering							
Description Notes: The banks are heavily vegetate feature, and use by cattle is evident to the control of the c		on the edge	e of a small woo	dland that wa	is likely plan	ited. Electric f	ence is present near the	
Measurements								
Depth of Water: 0.75 ft.	N/A□ Unknown□ <b>V</b>	Vater Edge	to Water Edge:	<u>6</u> ft.	N/A□	OHWM Width	n: <u>6</u> ft.	
OHWM Indicator:	Clear line on bank ☐She	lving	□Wrested vege	tation 🗹	Scouring		□Water staining	
<b>I</b> ✓B	ent, matted, or □Wra sing vegetation	ck line	□Litter and deb		Abrupt plant ange	community	☐Soil characteristic change	
Dominant Substrate:   [check all that apply]	edrock   Boulder	□ Cobble	e □ Grav	/el 🗆	Sand	<b>☑</b> Silt/ clay	☐ Organic	
Observations								
Riparian Zone Present: Y	es 🗹 No							
Vegetation Layers:	rees 🗹 Saplings	/Shrubs	✓ Herbs					
Dominant Bank Vegetation (lis Fraxinus nigra, Ulmus americar	et): na, Acer negundo, Phalaris a	arundinacea	a, Impatiens cap	ensis, Scirpus	s cyperinus.			
Aquatic Habitats (ex: submerged of Woody debris, overhanging veg	r emerged aquatic vegetation, overha etation.	anging banks/ro	ots, leaf packs, large	submerged wood,	riffles, deep po	ols, etc.):		
Aquatic Organisms Observed Aquatic invertebrates, frogs.	(list):							
Disturbances (ex: livestock acces Cattle, nearby electric fence, ru	ss, manure in waterbody, waste noff from pasture and two-tra	discharge pip ack.	pes):					
Observation Notes: Several culverts are present thr erosion is present.	oughout the stream, and a t	wo-track pa	th crosses the s	tream to the s	south of the	survey corrido	or. Some evidence of	



sasc016i\_E (across)



sasc016i\_N (downstream)



sasc016i\_S (upstream)

Waterbody Date	Officet									
Description										
Project Name:						Date:			Waterbody S	Survey ID:
Line 5 Relocation Proj	ect					2019-09-12			sasc014i	
State:		County/F	Parish:			USGS Wate	rbody Name	:		
WI		Ashland				UNT to Mare	engo River			
Company:		Crew Me	mber Init	ials:		Latitude:			Longitude:	
Enbridge		BRG/JS\	W			46.41808			-90.871268	
Survey Type: (check one)	☑ Centerle	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		✓ Stream	1		Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	✓ No War	ter	□ Clear		<b>□1</b>	Γurbid	☐Sheen on Surface	ı □Surfac	e Scum 🗆 🛭	Algal Mats □Other
Existing Condition <sup>a</sup> :	Highly	Function	al Stream	□ Mod	erately	y Functional S		☐ Functionally	Impaired Stre	am
Feature Description: (check one)	✓ Natural		☐ Artificia	al, man-made	e 🗆	Manipulated				
Flow Regime: (check one)	☐ Ephem	eral	✓ Intermi	ttent		Perennial	☐ Connection Connection	ting		
Sinuosity within Survey Corridor: (check one)	☐ Straigh	it	<b>☑</b> Meand	lering						
The stream runs throu	gii wedan	3 Wa300 T	re. The bi	anks are the	Kiy VO	getated and 3	oop.			
Measurements										
Depth of Water:	ft.	N/A 🗹	Unknov	vn□ Wate	r Edge	e to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM Widt	<b>h:</b> <u>4</u> ft.
OHWM Indicator: (check all that apply)	□ CI	ear line o	n bank	□Shelving		□Wrested v	egetation	<b>☑</b> Scouring		□Water staining
(спеск ал тасарруу)		ent, matte		□Wrack lir	ne	□Litter and	debris	□Abrupt plan change	t community	□Soil characteristic change
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Воι	ulder 🗆	Cobb	ole 🗆 G	Gravel	□ Sand	<b>☑</b> Silt/ clay	/ □ Organic
Observations										
Riparian Zone Preser	nt: 🗹 Ye	es	<u> </u>	No						
Vegetation Layers: (check all that apply)	□ Tr	ees	<b>v</b> (	Saplings/Shr	ubs	<b></b> Herbs				
Dominant Bank Vege Typha X glauca, Phala	<b>tation</b> (list aris arundi	<sup>:</sup> ) <b>:</b> nacea, Gl	yceria gra	andis, Salix p	etiolar	ris, Solidago g	igantea.			
Aquatic Habitats (ex: s	submerged or	emerged aq	uatic vegetat	ion, overhanging	banks/re	oots, leaf packs, la	rge submerged v	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms C None.	bserved (	(list):								
<b>Disturbances</b> (ex: live: Runoff from uphill pas		s, manure	in waterboo	ly, waste disch	narge pi	ipes):				
Observation Notes: Upstream and downst	ream of th	е таррес	d wetland,	the stream o	crosse	s mesic hardv	vood forest.			



sasc014i\_N (downstream)



sasc014i\_S (upstream)



sasc014i\_W (across)

Waterbody Data	Officet										
Description											
Project Name:						Date:			Waterbody	Survey ID:	
Line 5 Relocation Projec	t					2019-09-12			sasc015e		
State:		County/l	Parish:			USGS Wate	body Name	•			
WI		Ashland				None					
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:		
Enbridge		BRG/JS	W			46.417779			-90.866225		
Survey Type:	Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
'	River		✓ Stream	า		Ditch	☐ Swale	☐ Canal		Other	
Water Appearance: (check one)	No Wat	er	☐ Clear		□Т	Γurbid	☐Sheen on Surface	Surfac	e Scum 🛚	Algal Mats □ Other	
Existing Condition <sup>a</sup> :	Highly	Function	al Stream		/loderately	y Functional S	tream [	Functionally	Impaired Str	eam	
Feature Description:	Natural		☐ Artificia	al, man-m	ade 🗆 l	Manipulated					
Flow Regime: (check one)	Ephem	eral	☐ Interm	ittent		Perennial	☐ Connection	ting			
Sinuosity within Survey Corridor: (check one)	Straigh	t	✓ Meand	dering							
Measurements											
	ft.	N/A 🗹	Unknov	wn 🗆 🛮 Wa	ater Edge	to Water Ed	<b>ge:</b> ft.	N/A	OHWM Wid	lth: <u>2</u> ft.	
OHWM Indicator: (check all that apply)	□ CI	ear line c	on bank	□Shelv	/ing	□Wrested v	egetation	<b>☑</b> Scouring		□Water staining	
(спеск ан тасарру)		nt, matte ng veget		□Wrac	k line	□Litter and o	lebris	□Abrupt plan change	t community	☐ Soil characteristic change	
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Cobb	le 🗆 G	iravel	□ Sand	✓ Silt/ cla	ay 🗆 Organic	
Observations											
Riparian Zone Present: (check one)	□Ye	es	<u> </u>	No							
Vegetation Layers: (check all that apply)	□ Tr	ees	V S	Saplings/S	Shrubs	✓ Herbs					
Dominant Bank Vegeta Rubus idaeus, Bromus ii	<b>tion</b> (list nermis, (	): Cornus ra	acemosa,	Phleum p	oratense.						
Aquatic Habitats (ex: sub None.	merged or	emerged aq	quatic vegetal	tion, overhan	nging banks/ro	oots, leaf packs, la	rge submerged v	ood, riffles, deep po	ools, etc.):		
Aquatic Organisms Obs None.	served (	list):									
<b>Disturbances</b> (ex: livesto Runoff from pasture.	ck access	s, manure	in waterboo	dy, waste d	lischarge pi	ipes):					
Observation Notes: The waterbody leads into	o a wood	dy area, ε	and has be	een tramp	bled by car	ttle.					



sasc015e\_E (across)



sasc015e\_N (downstream)



sasc015e\_S (upstream)

Waterbody Date	JIICEL										
Description											
Project Name:						Date:			Waterbod	y Survey ID:	
Line 5 Relocation Pro	ect					2019-09-13			sasc017e		
State:		County/	Parish:			USGS Wate	rbody Name	: :			
WI		Ashland				None					
Company:		Crew Me	ember Init	tials:		Latitude:			Longitude:		
Enbridge		BRG/JS	W			46.415447			-90.86091	6	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other			
Waterbody Type:	□ River		☐ Stream	n	V	Ditch	☐ Swale	☐ Canal		☐ Other	
Water Appearance: (check one)	✓ No Wat	ter	☐ Clear		□Т	urbid	□Sheen or Surface	□Surfac	e Scum	□Algal Mats	□Other
Existing Condition <sup>a</sup> :	□ Highly	Function	al Stream	□ N	loderately	/ Functional S		Functionally	Impaired S	tream	
Feature Description:	☐ Natural		✓ Artificia	al, man-m	ade 🗆 I	Manipulated					
Flow Regime:	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec	ting			
Sinuosity within Survey Corridor: (check one)	<b>☑</b> Straigh	nt	☐ Meand	dering			Owaic				
Description Notes: The feature is a small	ditch strea	ım borde	ring a grav	vel road.							
Measurements											
Depth of Water:	ft.	N/A 🗹	Unknov	wn□ Wa	ater Edge	to Water Ed	<b>ge:</b> ft.	N/A 🗹	OHWM W	idth: 2	ft.
								770			
OHWM Indicator: (check all that apply)	⊔ Ci	ear line o	on bank	□Shelv	ring	□Wrested v	egetation	<b>☑</b> Scouring		□Water	staining
		ent, matte ing veget		□Wracl	k line	□Litter and	debris	□Abrupt plan change	t communi	ty □Soil ch change	naracteristic
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	□ Cobb	le 🗆 C	Gravel	□ Sand	<b>☑</b> Silt/ c	clay 🗆	Organic
Observations											
Riparian Zone Preser	nt: 🗆 Ye	es	<b>U</b> 1	No							
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings/S	Shrubs	☑ Herbs					
Dominant Bank Vege Bromus inermis, Phle	<b>tation</b> (list um pratens	;): se, Cornu	ıs racemo:	sa, Toxico	dendron	rybergii, Sym	phyotrichum	lanceolatum.			
Aquatic Habitats (ex: None.	submerged or	emerged ac	quatic vegetal	tion, overhan	ging banks/ro	oots, leaf packs, la	arge submerged v	vood, riffles, deep po	ools, etc.):		
Aquatic Organisms ( None.	Observed (	(list):									
<b>Disturbances</b> (ex: live Runoff from gravel roa	stock access ad and pas	s, manure ture.	in waterboo	dy, waste di	ischarge pi	pes):					
Observation Notes: The feature is a roads	ide ditch th	nat accun	nulates sto	ormwater	runoff. Ba	nks are heav	ily vegetated				



sasc017e\_E (across)



sasc017e\_N (upstream)



sasc017e\_S (downstream)

Trate: Beay Batt	4 011000									
Description										
Project Name:						Date:			Waterbody St	ırvey ID:
Line 5 Relocation Pro	ect					2019-10-10			sase023e	
State:		County/	/Parish:			USGS Wate	rbody Name	<b>)</b> :		
WI		Ashland	t			None				
Company:		Crew M	ember Ini	tials:		Latitude:			Longitude:	
Enbridge		MAL/AF	RK			46.43983			-90.845411	
Survey Type: (check one)	✓ Centerl	ine	☐ Re-Ro	ute		Access Road	□Facility	□Other		
Waterbody Type: (check one)	□ River		☐ Strean	n	V	Ditch	☐ Swale	☐ Canal		Other
Water Appearance: (check one)	☐ No Wa	ter	☑ Clear			Turbid	☐Sheen or Surface	n □Surfac	e Scum	gal Mats □Other
Existing Condition a: (check one)	☐ Highly	Function	nal Stream		Moderatel	y Functional \$		Functionally	Impaired Strea	m
Feature Description: (check one)	☐ Natural		☑ Artificia	al, man-n		Manipulated				
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connection Connection	ting		
Sinuosity within Survey Corridor: (check one)	□ Straigh	nt	✓ Mean	dering						
Measurements										
Depth of Water:	ft.	N/A 🗹	Unknov	wn□   <b>V</b>	Vater Edge	e to Water Ed	<b>lge:</b> ft.	N/A 🗹	OHWM Width	: <u>3</u> ft.
OHWM Indicator:	<b>☑</b> CI	ear line	on bank	□Shel	lving	□Wrested v	egetation	Scouring		□Water staining
(check all that apply)		ent, matte ing vege		□Wra	ck line	□Litter and	debris	□Abrupt plan change	t community	☐Soil characteristic change
Dominant Substrate: (check all that apply)	□ Ве	edrock	□ Во	ulder	☐ Cobb	ole 🗆 (	Gravel	□ Sand	<b>坚</b> Silt/ clay	□ Organic
Observations										
Riparian Zone Preser (check one)	nt: 🗆 Ye	es		No						
Vegetation Layers: (check all that apply)	□ Tr	ees		Saplings/	/Shrubs	✓ Herbs	i			
Dominant Bank Vege Trifolium pratense, Ta	tation (list raxacum o	f): fficinale,	, and Phala	aris arund	dinacea.					
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegeta	tion, overha	inging banks/r	roots, leaf packs, l	arge submerged v	wood, riffles, deep po	ools, etc.):	
Aquatic Organisms ( None.	Observed (	(list):								
<b>Disturbances</b> (ex: live Surrounding land use							of the feature	<b>)</b> .		
Observation Notes: Small scattered pools	of standing	g water p	present at	the time	of survey.					



sase023e\_NE (downstream)



sase023e\_SE (across)



sase023e\_SW (upstream)

Waterbody Data Sile									
Description									
Project Name:			Date:		Waterbody Survey ID:				
Line 5 Relocation Project			2019-10-10						
State:	County/Parish	1:	USGS Waterbody Name	<b>e</b> :					
WI	Ashland		None						
Company:	Crew Member	Initials:	Latitude:		Longitude:				
Enbridge	MAL/ARK		46.439592		-90.84302				
Survey Type:   (check one)	terline	-Route $\square A$	Access Road □Facility	□Other					
Waterbody Type: ☐ Rive (check one)	er 🗆 Str	ream 🗹	Ditch ☐ Swale	☐ Canal	□ 0	ther			
Water Appearance: ☐ No (check one)	Water ☐ Cle	ear 🗹	Γurbid □Sheen o Surface	n □Surfac	e Scum □Al	gal Mats □Other			
	hly Functional Stre	eam   Moderately		<b>⊈</b> Functionally I	Impaired Strea	m			
Feature Description: ☐ Nat (check one)	ural 🗹 Ari	ificial, man-made 🔲 🛭	Manipulated						
Flow Regime:	emeral 🗆 Int	ermittent 🗆 🗆	Perennial	cting					
Sinuosity within	night 🗹 Me	eandering							
The feature runs through a rowaterbody where standing waterbody			channel weakens within th	ne soybean field	and reforms o	n the east end of the			
Measurements									
Depth of Water: 0.25 ft.	N/A□ Unl	known⊡ Water Edge	e to Water Edge:1 ft	. N/A□	OHWM Width:	: <u>1</u> ft.			
OHWM Indicator: (check all that apply)	Clear line on bar	k □Shelving	☐Wrested vegetation	□Scouring		□Water staining			
<u> </u>	Bent, matted, or issing vegetation	□Wrack line	□Litter and debris	□Abrupt plan change	t community	☐Soil characteristic change			
Dominant Substrate: [check all that apply)	Bedrock	Boulder   Cobb	le	☐ Sand	<b>☑</b> Silt/ clay	□ Organic			
Observations									
	Yes	<b>☑</b> No							
Vegetation Layers: [check all that apply)	Trees	☐ Saplings/Shrubs	<b>௴</b> Herbs						
Dominant Bank Vegetation Phalaris arundinacea, Trifoliu	(list): m pratense.								
Aquatic Habitats (ex: submerge Shallow standing water.	d or emerged aquatic ve	egetation, overhanging banks/ro	oots, leaf packs, large submerged	wood, riffles, deep po	ools, etc.):				
Aquatic Organisms Observen None.	ed (list):								
<b>Disturbances</b> (ex: livestock ac Mowing.	cess, manure in wate	erbody, waste discharge pi	ipes):						
Observation Notes: Feature enters another epher	meral ditch, sase0	23e.							



sase024e\_E (upstream)



sase024e\_S (across)



sase024e\_W (downstream)

Waterbody Data Sil	CCI										
Description											
Project Name:				Date:			Waterbody Survey ID:				
Line 5 Relocation Project				2019-09-13			sasc018i				
State:	County	/Parish:		USGS Wate	USGS Waterbody Name:						
WI	Ashland	d		UNT to Marengo River							
Company:	Crew M	lember Initials	<b>:</b> :	Latitude:			Longitude:				
Enbridge	BRG/JS	SW		46.412378	46.412378			-90.850525			
Survey Type:  (check one)	enterline	☐ Re-Route		Access Road	□Facility	□Other					
Waterbody Type: ☐ Ri	ver	<b>☑</b> Stream		Ditch	☐ Swale	☐ Canal		Other			
Water Appearance: ☐ No (check one)	Water	☐ Clear	V	Turbid	☐Sheen on Surface	□Surfac	e Scum □ <i>A</i>	lgal Mats □Other			
Existing Condition <sup>a</sup> : Hi	ghly Function	nal Stream	☐ Moderatel	y Functional S	tream [	Functionally	Impaired Stre	am			
Feature Description: V Na	atural	☐ Artificial, m	nan-made 🗆	Manipulated							
Flow Regime:	hemeral	✓ Intermitter	nt 🗆	Perennial	☐ Connect	ting					
Sinuosity within Strucey Corridor:	raight	✓ Meanderir	ng								
Measurements											
Depth of Water: 0.5 ft.	N/A□	Unknown□	Water Edge	e to Water Ed	<b>ge:</b> 7 ft.	N/A□	OHWM Widtl	<b>1:</b> <u>8</u> ft.			
OHWM Indicator:	☐ Clear line	on bank $\Box$	Shelving	□Wrested v	egetation	<b>☑</b> Scouring		□Water staining			
	☑Bent, matte missing vege		Wrack line	□Litter and o	lebris	□Abrupt plan change	t community	□Soil characteristic change			
Dominant Substrate: (check all that apply)	□ Bedrock	☐ Boulde	er 🗆 Cobb	ole 🗆 G	iravel	□ Sand	<b>☑</b> Silt/ clay	□ Organic			
Observations											
	□ Yes	<b>☑</b> No									
Vegetation Layers: (check all that apply)	✓ Trees	<b></b> Sap	lings/Shrubs	<b>☑</b> Herbs							
Dominant Bank Vegetation Betula alleghaniensis, Acer	n (list): saccharum, .	Agrostis gigan	tea, Ulmus am	ericana, Cornu	s sericea, Me	elilotus officinal	e, Ribes ame	ricanum.			
Aquatic Habitats (ex: submere Woody debris.	ged or emerged a	aquatic vegetation, o	overhanging banks/i	roots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):				
Aquatic Organisms Obser Leopard frogs.	ved (list):										
<b>Disturbances</b> (ex: livestock a Cattle usage, runoff from pa		e in waterbody, w	/aste discharge p	oipes):							
Observation Notes: The wetland is associated v	vith wetland s	seep feature w	asc025e, and i	s degraded by	cattle usage						



sasc018i\_E (across)



sasc018i\_N (downstream)



sasc018i\_S (upstream)

# **APPENDIX F**

Waterbody Data Sheets
Part 8 of 24

Waterbody Date	Jileet											
Description												
Project Name:						Date:			Waterbody	Survey ID:		
Line 5 Relocation Proj	ect					2019-09-14	2019-09-14					
State:		County/	Parish:			USGS Waterbody Name:						
WI		Ashland				UNT to Marengo River						
Company:		Crew Me	ember Ini	tials:		Latitude:			Longitude:			
Enbridge		BRG/JS	W			46.411286	46.411286			-90.847576		
Survey Type: (check one)	✓ Centerl	line	☐ Re-Ro	ute		Access Road	□Facility	□Other				
Waterbody Type:	□ River		✓ Stream	n		Ditch	☐ Swale	☐ Canal		Other		
Water Appearance: (check one)	□ No Wa	ter	☑ Clear			Turbid	☐Sheen or Surface	n □Surfac	e Scum 🗆	Algal Mats	□Other	
Existing Condition a: (check one)	☐ Highly	Function	al Stream	V	Moderatel	y Functional S		☐ Functionally	Impaired Str	ream		
Feature Description:	✓ Natural	<u> </u>	☐ Artificia	al, man-ı	made 🗆	Manipulated						
Flow Regime: (check one)	<b>E</b> Ephem	eral	☐ Interm	ittent		Perennial	☐ Connec	ting				
Sinuosity within Survey Corridor: (check one)	□ Straigh	nt	✓ Meano	dering			Owalo					
Measurements												
Depth of Water: 0.2	ft.	N/A□	Unknov	wn□  V	Nater Edg	e to Water Ed	<b>ge:</b> <u>3</u> ft.	N/A□	OHWM Wid	<b>dth:</b> <u>4</u> ft		
OHWM Indicator:	□С	lear line o	on bank	□She	elvina	<b>☑</b> Wrested v	egetation	<b></b> ✓Scouring		□Water s	taining	
(check all that apply)	<b>⊻</b> Be	ent, matte ing veget	ed, or		ack line	□Litter and	•	□Abrupt plan	t community		aracteristic	
Dominant Substrate: (check all that apply)	□Ве	edrock	□ Во	ulder	□ Cobb	ole 🗆 (	Gravel	<b>☑</b> Sand	☐ Silt/ cla	ay 🗆 C	Organic	
Observations												
Riparian Zone Preser	nt: 🗹 Ye	es		No								
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Saplings	s/Shrubs	<b>☑</b> Herbs						
<b>Dominant Bank Vege</b> Fraxinus nigra, Viburn	tation (list um lentage	t): o, Vitis rip	paria, Mat	teuccia s	struthiopte	ris.						
Aquatic Habitats (ex: Woody debris.	submerged or	emerged ac	quatic vegeta	tion, overh	anging banks/	roots, leaf packs, l	arge submerged v	wood, riffles, deep po	ools, etc.):			
Aquatic Organisms C None.	)bserved (	(list):										
<b>Disturbances</b> (ex: live Runoff from cattle pas		s, manure	in waterboo	dy, waste	discharge p	pipes):						
Observation Notes: The stream runs throu	igh a fores	t, and like	ely receive	es some	runoff fron	n the cattle pa	sture upslopε	e on the edge o	f the forest.			



sasc019e\_N (downstream)



sasc019e\_S (upstream)



sasc019e\_W (across)

Trato. Souy Batt	<u> </u>												
Description													
Project Name:	D	Date:	Waterboo	Waterbody Survey ID:									
Line 5 Relocation Proj	ect					2	2019-09-14			sasc020e			
State:		County/	/Parish:			U	USGS Waterbody Name:						
WI		Ashland	d			ι	UNT to Marengo River						
Company:		Crew M	ember Ini	tials:		L	.atitude:	Longitude	Longitude:				
Enbridge		BRG/JS	SW			4	16.410244			-90.84627	70		
Survey Type: (check one)	☑ Centerl	ine	☐ Re-Ro	ute		□Ac	cess Road	□Facility	□Othe	er			
Waterbody Type: (check one)	□ River		☐ Strean	n	[	<b>Ø</b> Di	tch	☐ Swale	☐ Can	al	☐ Oth	er	
Water Appearance:	✓ No Wat	ter	☐ Clear			□Tu	rbid	☐ Sheen o	n □Surfa	ace Scum	□Alga	l Mats	□Other
(check one)  Existing Condition <sup>a</sup> : (check one)	☐ Highly	Function	nal Stream	n 🗆	Moderat	tely F	unctional S	<u>Surface</u> tream	Functionall	y Impaired S	Stream		
Feature Description: (check one)	☐ Natural		✓ Artificia	al, man-	-made [	□ Ma	anipulated						
Flow Regime: (check one)	<b>☑</b> Ephem	eral	☐ Interm	ittent		□ Pe	erennial	☐ Connec	cting				
Sinuosity within Survey Corridor: (check one)	<b>☑</b> Straigh	t	☐ Meand	dering									
Measurements													
Depth of Water:	ft.	N/A 🗹	Unknov	wn□	Water Ed	lge t	o Water Ed	<b>ge:</b> ft	N/A 🗹	OHWM W	idth:	<u>1</u> ft.	
OHWM Indicator: (check all that apply)	□ CI	ear line	on bank	□She	elving		□Wrested ve	getation	□Scouring	1		∃Water sta	ining
(onoon all that apply)		nt, matte		□Wr	ack line		□Litter and o	lebris	□Abrupt pla	ant communi		Soil chara	acteristic
Dominant Substrate: (check all that apply)	□В€	edrock	□ Во	ulder	□ Col	bble	□G	ravel	□ Sand	<b>⊻</b> Silt/ o	clay	□ Org	ganic
Observations													
Riparian Zone Preser (check one)	nt: 🗆 Ye	es		No									
Vegetation Layers: (check all that apply)	<b>☑</b> Tr	ees		Sapling	s/Shrubs		✓ Herbs						
<b>Dominant Bank Vege</b> Abies balsamea, Betu	<b>tation</b> <i>(list</i> la papyrife	ra, Athyı	rium filix-fe	emina, F	Rubus pub	besc	ens, Matteu	ccia struthio	pteris.				
Aquatic Habitats (ex: None.	submerged or	emerged a	quatic vegeta	tion, overh	hanging bank	ks/root	ts, leaf packs, la	rge submerged	wood, riffles, deep	pools, etc.):			
<b>Aquatic Organisms C</b> None.	bserved (	(list):											
<b>Disturbances</b> (ex: live Runoff from hay field.	stock acces	s, manure	in waterbo	dy, waste	e discharge	e pipe	es):						
Observation Notes: The feature is a low q	uality ditch												



sasc020e\_E (upstream)



sasc020e\_S (across)



sasc020e\_W (downstream)

Waterbody Data 3	HCCL											
Description												
Project Name:						Date:	Date:			Waterbody Survey ID:		
Line 5 Relocation Project						2019-09-14	2019-09-14					
State:		County/I	Parish:			USGS Waterbody Name:						
WI		Ashland				UNT to Marengo River						
Company:	(	Crew Me	ember Init	ials:		Latitude:			Longitude:			
Enbridge		BRG/JS	W			46.409914			-90.845415			
Survey Type:	Centerli	ne	☐ Re-Ro	ute	□A	Access Road	□Facility	□Other				
	River		✓ Stream	ı		Ditch	☐ Swale	☐ Canal		Other		
Water Appearance:   (check one)	No Wat	er	□ Clear		□Т	urbid	☐Sheen on Surface	□Surfac	e Scum 🛚	Algal Mats □Other		
Existing Condition <sup>a</sup> :  (check one)	Highly	Function	al Stream	□ M	oderately	/ Functional S	tream [	☐ Functionally	Impaired Stre	eam		
Feature Description:	Natural		☐ Artificia	al, man-ma	ade 🗹 l	Manipulated						
Flow Regime:	Ephem	eral	☐ Interm	ittent		Perennial	☐ Connect Swale	ting				
Sinuosity within Survey Corridor: (check one)	Straigh	t	✓ Meand	lering								
The feature is a small eros	sional s	ueam ru	mining unc	ougn a you	ing mesic	; nardwood 10	est.					
Measurements												
Depth of Water: ft.	. 1	N/A <b>I</b>	Unknov	vn□ Wa	iter Edge	to Water Ed	<b>ge:</b> ft.	N/A	OHWM Wid	<b>th:</b> <u>2</u> ft.		
OHWM Indicator: (check all that apply)	□ Cle	ear line c	n bank	□Shelvi	ing	□Wrested ve	egetation	<b>☑</b> Scouring		□Water staining		
(опоск ин ини аррну)		nt, matte ng veget		□Wrack	( line	□Litter and o	lebris	□Abrupt plan change	t community	☐Soil characteristic change		
Dominant Substrate: (check all that apply)	□ Be	drock	□ Во	ulder	☐ Cobbl	le 🗆 G	ravel	<b>☑</b> Sand	□ Silt/ cla	y 🗆 Organic		
Observations												
Riparian Zone Present:	□ Ye	s	<b>I</b>	No								
Vegetation Layers: (check all that apply)	<b>☑</b> Tre	ees	V S	Saplings/S	hrubs	✓ Herbs						
Dominant Bank Vegetation Populus tremuloides, France	<b>on</b> (list) kinus ni	): gra, Betu	ıla papyrif	era, Acer r	rubrum, C	Cornus racem	osa.					
Aquatic Habitats (ex: submit Woody debris.			uatic vegetat	tion, overhang	ging banks/ro	oots, leaf packs, la	rge submerged w	ood, riffles, deep po	ools, etc.):			
Aquatic Organisms Observine.	erved (	list):										
<b>Disturbances</b> (ex: livestock None.	( access	, manure	in waterboo	dy, waste dis	scharge pi	pes):						
Observation Notes: The stream is associated	with we	etland fea	ature wasc	c030f. Woo	ody debris	s is present th	roughout the	stream.				